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Editorial Notes

ONLY very rarely is a great Treasure kept intact through the Ages and eventually made known in such a happy way as was the case at Sutton Hoo, in Suffolk, last year. In this instance Fortune showed special discernment in choosing Mrs E. M. Pretty as the instrument through whom this remarkable revelation was made known. Now that the work has been carried through to a successful conclusion it is well to remember that she was the initiator and controller throughout.

It is not the first time in the history of British archaeology that knowledge has been signally advanced by the enterprise of an enlightened land-owner—far from it; indeed British archaeology has been largely built up on foundations so laid. Not always, however, was their enthusiasm well served or well directed; and never did it reap such a reward as this, the finest archaeological discovery ever made in Great Britain, perhaps in Europe. This country, indeed the whole world, owes a deep debt of gratitude to Mrs Pretty for the initiative without which this great discovery would never have been made, and for her public-spirited generosity in presenting the whole of the finds, intact and undivided, to the nation. The British Museum is unquestionably the proper home for such a remarkable treasure.

Through the courtesy of Mr C. W. Phillips, who directed the excavations for Mrs Pretty, one of the Editors of ANTIQUITY (Mr O. G. S. Crawford) was present, together with his Ordnance Survey colleague Mr W. F. Grimes, during the week when most of the grave-goods were found. It was for both the experience of a life-time. In return both did what they could, by photography and technical methods, to assist the work.

The excavator, if he is properly trained, and has the necessary imagination, can get an intellectual thrill from discoveries that mean nothing to the man in the street. A few bits of human skull from a gravel-pit or cave enlarge for him the history of the human race; post-holes that Victorian excavators would never have seen at all become in his hands the farms and courts of prehistoric Britain. He does not for this need finds of great intrinsic or artistic value, but neither on the other hand does he despise them; and he is sufficiently human, usually, to enjoy a successful treasure-hunt as much as anyone, and perhaps to appreciate it more variously.

In the Saxon ship was buried, amid much else, gold and silver worth a fortune. But it was not mere useless bullion (like the bank reserves of modern states); it consisted of objects of great artistic value. As we watched emerging daily from the earth things that we saw were unique we felt that we were present at the unveiling of history, and that the history of our own country. There were great moments that none of us who were present will ever forget—such as the lifting of the silver plate, that for days had lain there half covering a silver basin (PLATE XVIII). We knew that exciting things were waiting for the uncovering—when the great moment came we were not disppointed (pages 69–70 and PLATE XIV).

The finding of the gold clasps was another wonderful moment. As always with gold objects, they were in perfect condition, without spot or tarnish. They are unique, and it was a happy chance they should be found on a day when we had visitors from the British Museum. The same evening there came, as a fitting climax to a crowded day, what was perhaps the most unexpected discovery of all. For some time we had been puzzled by a tantalizing patch of purple dust, sure

harbinger of silver. It developed into a dome-shaped lump which Mr Grimes undercut and placed on a zinc tray. He deposited this on the grass outside the barrow and proceeded to take away the much corroded outer fragments. When at last he lifted the top we saw a bright silver bowl, base upwards, in perfect condition, and under this was yet another bowl. In all eight were thus uncovered, each with different ornamentation inside (PLATE XIX). That same day we removed the iron stand and silver tray, the iron-bound bucket, the gold clasps, and the sword.

Each day of that exciting week yielded some first-rate find, often of a type unknown before. As we worked along the keel we *knew* that under those mouldy-looking lumps of decayed wood lay hidden things of priceless historic and artistic value. We anticipated the finding of a sword, shield, helmet, and drinking-horns, and we were not disappointed. Things we did not expect were found—the purse, silver bowls and tray, for instance, and later the axe and suit of chain mail. It was clear that more would be found when the final examination in the laboratories of the British Museum was completed. Both the silver basin and one of the bronze hanging-bowls led to new discoveries (' Vicky ', and the fish).

It is possible that there may yet be a few more finds when laboratory work can be resumed. For alas ! within a few days of the conclusion of this stage of the excavations, the investigations were brought to an abrupt end by war. The whole of the finds had to be given first-aid treatment and then reinterred in a place of safety. Needless to say no anxiety need now be felt on their account, provided peace is declared during the present decade. But the preparation of any adequate report was rendered very difficult, and to that extent the accounts given in this number (and all work and study devoted to them so far) must be regarded as provisional. There was not time to take proper studio-photographs of the objects. The work will of course be resumed at the conclusion of the war, and we can only await that longed-for day with eager impatience.

The decision of the British Museum authorities to run no risks, and to leave all the finds undisturbed in their present repository, is

obviously the right one. The iron objects will certainly keep without deterioration for a year or two; and the perishable ones (of wood, cloth, leather) have no doubt been duly sealed.

A few points of general interest may be touched on here. Whose grave was it? Professor Chadwick deals with this problem. Here it may be stated that, though the whole treasure obviously represents the funeral obsequies of a king, a body was not interred in the ship. Upon this view all who took part in the excavation (including the present writer) are agreed. Had it been otherwise, *some* remains, however decayed, would certainly have been found, and some purely personal articles. Soil-acids would not dissolve absolutely everything so as to leave no trace of a body; some dust or silhouette-mark in the sand (see ANTIQUITY VII, 468–71) would surely survive, and the teeth.

Then as to the date. The coins have not proved as helpful as we hoped. Their evidence is based, not upon the sure foundations of regnal years (except in fixing an upper limit of date), but upon the shifting evidence of style; and it must therefore be given no greater weight than the rest. For the survival of such a treasure we have to thank the deep burial in sand; it is this that has kept it safe from grave-robbers. We know that Dr Dee made an effort in this direction (p. 11), most fortunately without success. Indeed, given the collapsible nature of sand, it would not be possible to get at the treasure without first removing as huge a mass as was in fact removed by the present excavators. Any less heroic measures would merely have resulted in a cave-in.

It remains to thank those who have made possible the publication of the various accounts printed in this number, and first of all Mr C. W. Phillips for his on the actual excavation. Then we acknowledge with gratitude the kindness of Sir John Forsdyke, Director of the British Museum, and the Trustees, for allowing us the use of some blocks to illustrate a few of the most outstanding finds. Here we may note that in the December number of the *British Museum Quarterly* (which we strongly recommend our readers to purchase) nearly 30 pages, accompanied by 11 plates, are devoted to accounts of the Finds from Sutton

Hoo. These and the various articles which we print supplement each other. A further account, giving full details of the excavation and of the ship, will be published in the *Antiquaries Journal*. Special thanks are due to Mr T. D. Kendrick, Keeper of the Department of the British Museum concerned, for his contributions, and for his help and kindness in many other ways.

In conclusion we have endeavoured to illustrate the accounts which follow by an adequate number of illustrations, for the occasion requires unusual treatment.

We must now refer to the large number of letters received recently from our subscribers, many of whom have written specially to express their pleasure that ANTIQUITY will still be published. They have been extraordinarily kind in other ways. Their faith in us has been shown by advance subscriptions for years yet to come, and of offers of practical help should such be needed. This is a great encouragement, and though future prospects are not too favourable we hope that we shall survive the difficulties which may have to be faced.

Subscriptions for 1940

Without hesitation we remind those who have not yet sent the annual subscription, and who do not pay it through their banks, that an early payment without further reminder will be doubly appreciated. It lessens correspondence, postages, and paper, all of which we are exhorted to save.

The Sutton Hoo Ship-Burial

I. The Excavation, by C. W. Phillips

UNTIL the year 1939 the archaeology of Britain in Anglo-Saxon times has had to concern itself little with ship-burials and to no great extent with rich burials of any kind. If we omit those in the county of Kent and a few important burials at Taplow, Broomfield, and elsewhere, the archaeology of Anglo-Saxon graves in general presents few striking features besides its almost universal poverty.

Although ship-burial in various forms had been a feature of northern archaeology for centuries, there was little evidence that the custom had crossed the North Sea with the invading Anglo-Saxons to any important extent. The only hint that it had made this passage was found in the discovery at Snape Common, near Aldeburgh, Suffolk in 1862.[1] Here in an Anglo-Saxon barrow group, containing many inurned cremations, was found a buried boat 48 feet long with a beam of 10 feet and a depth of 4 feet. It appears to have been clinker-built with seven strakes, keel-less, and propelled by oars. The hull was held together by iron clench-nails. Some traces of a burial, possibly by cremation, were found along the keel-line of the boat, and from this two green glass goblets, a piece of a bronze bowl, some hair (animal fur ?), and a late Roman gold ring with onyx intaglio survive. All the relics but the ring are now in Aldeburgh Museum, and with them are pieces of a burnt human mandible. This appears to be all the evidence for a cremation there is, and as the excavator says that no bones were found this may be a stray from one of the adjacent cremations.

The boat had a rounded stern and was comparatively beamy, features distinguishing it sharply from the Nydam ship, the prototype of Anglo-Saxon craft.

Apart from this all the ship-burial remains found in these islands have belonged to the Viking Age and have been rifled long before discovery, besides being, in all probability, of no particular quality in their time. Nothing can be more certain than the use of great numbers of boats of the Nydam type by the Anglo-Saxons in the many phases of their occupation of England in the fifth and sixth centuries.

Already before the collapse of the Roman province they must have been familiar to the dwellers on our east coast, and after the conquest

[1] *Notes of Jottings about Aldeburgh, Suffolk*, by Nicholas Fenwick Hele. London, J. R. Smith, 36 Soho Square, 1870. *Victoria County History of Suffolk*, I, 326–28.

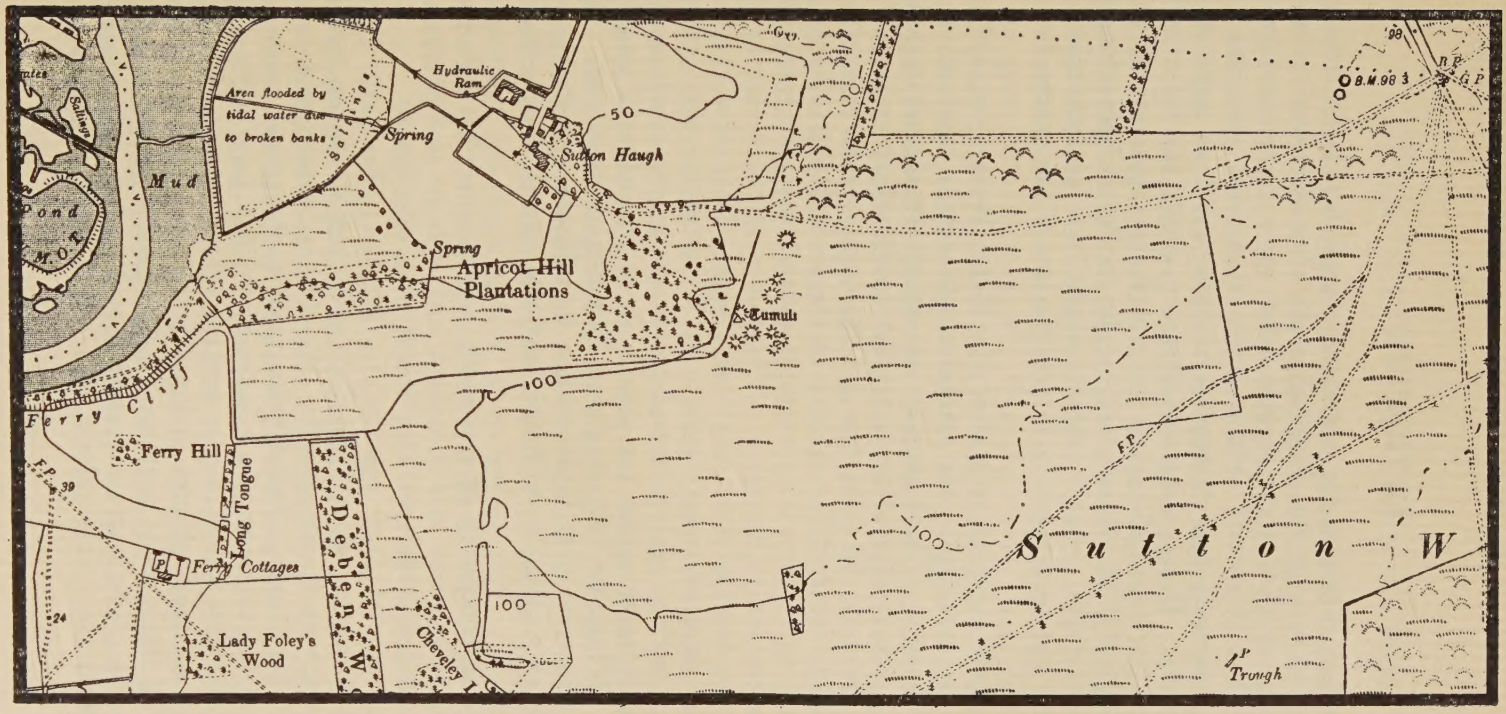


FIG. 1. THE SITE OF THE SHIP-BURIAL IS SHOWN BY THE ORDNANCE SYMBOL IMMEDIATELY BEFORE THE LETTER T OF 'TUMULI'. (From O.S. 6 in. Suffolk 77 NW and 76 NE). SUTTON HOO IS 9 MILES ENE OF IPSWICH

Reproduced from the Ordnance Survey map with the sanction of the Controller of H.M. Stationery Office

was complete they became the standard vessel for water transport. Nothing in the history of the Anglo-Saxons after the first century of conquest suggests to us that the Nydam boats were much used for war-like purposes ; but kings and nobles of the coast-wise countries might be expected to possess fine examples of these craft as part of their normal equipment. Under these conditions it would not be surprising if, while the Saxons were still pagan, these craft, so supremely identified with the grandeur of their owners, became the means of their transport to another life after death. Barrow-burial might be expected inland, but ships were likely last resting places for the leaders of the coastal Saxons.

It was in the summer of 1938 that Mrs E. M. Pretty, J.P., of Sutton Hoo, decided to investigate the contents of certain mounds on her estate at Woodbridge. These form a close-set group, eleven in number, placed on the western edge of the extensive heath which occupies most of the country between Woodbridge and the open sea six miles distant. The place is at the head of the estuary of the river Deben, a stretch of tidal water some nine miles long running south-eastwards from Woodbridge to enter the sea at Bawdsey. This is one of the many considerable inlets on the coast of East Anglia and would obviously be a useful harbour in the days of small boats. At Woodbridge the estuary is about 250 yards wide at high tide, and its eastern side is overlooked by a fairly steep escarpment some 100 feet high at the edge of which the heath begins. Thus the barrow-group overlooked the water. It is a point of some interest that Bede names Rendlesham as the site of a palace of the East Anglian royal house, and this is only four miles away to the northeast.

The heath is composed of a gravelly sand, somewhat humified at the surface where a sparse turf competes with lichens and bracken. It contains a few rolled nodules of clay but is otherwise pure.

In the summer of 1938, assisted by Mr Guy Maynard, Director of the Ipswich Museum, and Mr Basil Brown, Mrs Pretty opened three of the lesser barrows in the group. We are not concerned in detail with the contents of these, all of which appear to have been more or less disturbed ; but the remains of a boat some 18 feet long with a square iron-bound stern were found in one, and the others contained cremation burials with associated objects belonging to the sixth and seventh centuries. The finds were removed to Ipswich Museum where they may now be seen. The barrow nearest the edge of the escarpment was much larger than any of the others, and it was known that its western

end had been partly removed by ploughing and other means in comparatively recent times. Its original form thus appears to have been an elongated oval in plan with a length of more than 100 feet, a breadth of 75 feet, and a height of 10 feet.

In May 1939 Mrs Pretty decided to examine the contents of the barrow. Mr Basil Brown was placed in charge of the work in the field under the general supervision of Mr Maynard. Starting at the east end the former early encountered a system of iron objects in the sand which he was able to recognize from his experience of the previous year as the clench-nails belonging to the end of a boat protruding from the old ground-surface level. Working with commendable care and skill he progressed steadily until he had cleared the greater part of what later proved to be the forepart of the ship. At this stage it was recognized that the discovery was one of great importance and a consultation was held with the Office of Works and the British Museum, as a result of which the writer was asked to supervise the work on behalf of the Office. The Science Museum was also informed of the find, and it was arranged that Lieut-.Commander J. K. D. Hutchison should make a study of the ship, which he did in the later stages of the excavation.

During the most critical parts of the work the writer had the advantage of the help of Mr W. F. Grimes and of Mr and Mrs Stuart Piggott, which he gratefully acknowledges. Mr O. G. S. Crawford was also a witness of the main discovery and made a photographic record of great value. At a later stage Miss B. Wagstaff and Miss M. K. Lack took many important photographs of the excavation of the ship, and the excavators were much helped by Mr W. E. Robins, who made a number of important drawings as well as recording the scene in oils and drypoint. To all of these the hearty thanks of the excavators are due.

The Physical Conditions of the Excavation

For all practical purposes no other material but sand was to be found on the site either in the composition of the soil or in the barrow. It was early seen that the whole of the mound overlying the ship was built of turf which had been stripped from the surface of the heath. This turf had mouldered into a mass of dark sand, and under favourable conditions of light it was possible to see the faint outline of individual turves in the sides of the section cut through the mound. Dr F. E. Zeuner confirmed the turf diagnosis, and established the point that the vegetation of the heath at the time of the burial was the same as at the present day.

It was soon apparent that the whole of the ship with the exception of its two uprising ends had been buried below the old ground surface. This fact, associated with the very perishable indications of the form of the ship, the friable nature of the soil, the depth of the excavation necessary to reach the ship's keel, and the impracticability of doing much to cover the work from the weather, made a very wide trench with terraced sides reinforced by timber necessary. In spite of days of heavy rain when nothing could be done to prevent the sand from slipping these measures were entirely successful, as the photographs witness.

Since the whole of the ship and its contents had been involved in sand for some 1300 years, it is not surprising that there were virtually no remains of wood except for small fragments which were found here and there preserving their form if not their character through contact with rusted iron. This also made it practically certain that no organic remains would be found except for those which might have had the good fortune to encounter the necessary chemical conditions for their preservation among the objects placed in the burial. Traces of the existence of wood could frequently be seen in the form of thin layers of discoloured sand, associated with bands of more or less of the same material leached white by the action of the acids liberated in the decay of the wood. The normal colour of the sand on the site was yellow, except where it was the product of the decay of turf or had been under decaying wood. Efforts were made to interpret these patches of leached sand, but it was soon clear that none but the vaguest ideas could be formed of the size and shape of the wood whose decay had produced them.

Under normal conditions of weather it appears that the sand is thoroughly damp here quite near the surface, so that the whole of the ship and burial deposit has always been wet.

No difficulty was found in distinguishing the filling of the trench from the undisturbed sand even when the colour was the same in each case. The filling dropped away easily from the sides of the trench and following it was merely mechanical.

The whole of the area occupied by the barrow group had been the scene of casual settlement by folk in Early Bronze Age times. The chief evidence for this, apart from surface finds, was the occurrence of a few hearths here and there about a foot below the old ground-surface. In digging their trench the Saxons had disturbed some of these with the result that bits of beaker and a piece of rusticated ware turned up in

different parts of the ship, some even as low as the keel-line. These had been thrown in with the filling.

A determined attempt had been made in the sixteenth century to rob the grave. Traces of a large excavation were found in the barrow directly over the eastern half of the burial-chamber. It had been carried down to old ground level and remains of a fire and a broken Bellarmine pot found in the bottom of the hole suggest that we have here vestiges of the attempt to open the barrow, which may have been made by Dr John Dee, the Elizabethan alchemist.

The Mode of the Burial

As the ship was 85 feet in length the problem of its transport and its placing in the ground was a serious one. The barrow-site is about half a mile from the present course of the river, and 100 feet above it. It is possible that in Saxon times the water came nearer to the foot of the escarpment before the mud flats were embanked, but this would not greatly reduce the distance. The barrow stands between the heads of two small coombes which converge lower down towards the bottom of the wood. It is slightly nearer to the more westerly of the two, but the top of this is much too steep, and the other was almost certainly the route adopted. Here the gradient averages about 1 in 20, steepening a little towards the top, but this is compensated for by the much greater width of this little valley. Presumably the boat was brought up on rollers, possibly by animal, or perhaps by human traction. No light can be thrown on this question, but it may be pointed out that, although bulky, the ship was relatively light for its size. We may be sure that the men who built such ships were well used to moving them about on land.

The trench was very little wider than the ship itself and at the stern end fitted closely round it. This suggested that the ship had probably been drawn stern first down a ramp to the level of the bottom of the trench and then hauled along near to the closed end. When the trench was examined at the bow end it was found to be closed there also so it follows that the ship was lowered into the grave coffin-wise. It was noticed that a thin layer of yellow sand from the digging of the trench underlay the barrow on each side. When the trench was dug the spoil was probably carried clear away from it, leaving the sides free. This thin layer may be explained as the spill from its removal. Later the main mass of the spoil was filled into the fore and after parts of the ship. The disposal of the surplus excluded by the presence of the burial-chamber was not determined, but it was probably added to the barrow.

Thus when the time came to bury the ship there were no dumps along the sides of the trench. It may be suggested that long poles were placed across it in sufficient numbers to support the ship, which was then run out on to them. A series of strong wooden bollards may have been driven into the ground well back from each side of the trench. Cables were passed under the ship and their ends secured round the bollards. After the cables had been tightened to take the weight of the ship, and the poles had been removed, it was lowered steadily into the trench by paying off the cables from the bollards. No evidence directly supporting this theory was found, but the fact remains that the ship was successfully lowered into the trench and came to rest on an even keel with only a slight lean to starboard. It may be suspected that at least some members of the burial party had dealt before with similar problems.

The Burial-Chamber

This structure was placed amidships and measured 17½ feet in length. It had entirely collapsed, but a number of indications survived showing what its character had been. The two ends stood at right angles across the ship and rose to a gable-ended roof, the ridge of which seems to have been some 12 feet above the keel-level. The eaves came down to the gunwales on each side, resting just inside them. Some considerable pieces of the lower edge of the roof on the starboard side remained in position after the collapse of the chamber as a whole. The traces of these could be easily seen and gave an idea of the slope of the roof and also of its relation to the gunwale. The chamber was not an original part of the ship and was constructed of oak boards, probably quite roughly fashioned. Judging from the fallen pieces on the floor it seems that the roof was made of two layers of boards, one running from end to end of the chamber parallel with the ridge, and the other going from gunwale to ridge at right angles. It is also fairly certain that the ridge was finished off with a thick layer of turf. On or just above the site of the ridge a curious object was found, an oval basin of clay 3 feet long and seemingly built up in layers (PLATE I). This had sunk down when the roof gave way but had not been broken. It was not fired and contained nothing to show its purpose. Its position above the burial chamber a little west of the middle suggests that it may have been used to receive libations when the grave was being closed. The writer knows of no parallel to this in other ship-burials.

The ends of the chamber were made of boards, but whether set

horizontally or vertically is uncertain. Appearances suggested a horizontal setting but the preservation was very bad. A few vertically set iron spikes occurred along the bases of the walls.

A doubtful point was whether the chamber had a floor other than the bottom of the boat. As this was fairly flat none was particularly necessary. A system of iron cleats occurred, disposed on each side of the main deposit through the greater part of the length of the chamber and was not found outside its limits. These cleats, although they lay on the bottom of the boat, were not secured to it in any way though in a number of instances they seemed to be curved to accommodate themselves to it. Here and there it appeared that the bottom of the boat may have been strewn with bracken, for there were traces of some decayed vegetable bedding of this kind.

The burial chamber had not been disturbed by robbers and remained inviolate until it collapsed through decay. Once this had happened the business of robbing the grave became formidable. Many feet of sand would have to be dug through, and the hole would have to be timbered up extensively for any success to be achieved, even if it was realized that the deposit was deep below the old ground surface, which is improbable.

The construction of the chamber must have been substantial, for the collapse can hardly have taken place for many years after the burial. This assertion depends on the condition of many of the iron objects in the grave when the fall took place. The helmet and the sword were both broken into many pieces, and the chain mail had already become glassy in consistency and was shattered. This suggests a very advanced stage of decay which would take a long time to develop.

With the chamber in place the boat must have looked very much like the traditional Noah's Ark of the nursery.

Contents of the Burial-Chamber

In describing the position of the objects found a convention will be adopted based on the points of the compass. Although the ship did not lay directly east and west it came so near to doing so that the terms north, south, east, and west may be taken as meaning port-side, starboard side, towards the bow, and towards the stern respectively.

As found, the objects in the burial group rested either directly or very nearly so on the bottom of the ship. They were disposed in the form of a large letter H with cross-bar of exaggerated length. The two uprights stretched across the ship just inside the end walls of the

chamber, and the cross-bar joined them along the keel-line. With only one exception, the remains of an iron-bound wooden bucket, all the grave-goods were closely confined to this arrangement. The centre of interest for those preparing the burial was at the west end, where a considerable number of magnificent objects connected with the arms and personal equipment of the dead man were placed. The keel-line deposit was also chiefly composed of similar objects, while the deposit across the east end of the area was made up of large bronze cauldrons and other domestic vessels and their tackle.

The main discoveries were made in the last week of July and it was a fortnight before they had all been lodged in the British Museum. By that time international affairs were once more becoming critical and before any proper examination of many of the finds could be made they had to be packed away into places of safety. No attempt was made on the spot to empty the various receptacles found, this work being done in the British Museum. We thus have no more than a general knowledge of the finds and more leisured examination will certainly yield many new features as well as further objects. The account which follows is for these reasons no more than provisional.

We will begin our more detailed description from the west end. Immediately at the foot of the inner side of the chamber wall lay a long iron object in the form of a bar with its lower end pointed like a railing spike. The top end carried an equal-armed cross at right angles to the bar, each of the four ends of the cross having a decoration in the form of the head and horns of a bull (?). Eleven inches from this feature the bar passed through a square iron frame, also at right angles to it. The four corners of this were decorated with more bulls' heads, and the frame was filled in with a system of iron bars parallel to its edges on all four sides. Signs were not wanting that the frame had been supported by stays which passed from the undersides of the corners down to the bar some 1 foot 3 inches below, but this part of the object was badly preserved. It is supposed that it was some kind of portable flambeau which could be stuck in the ground wherever wanted (PLATE II).

Close to it lay the collapsed remains of an iron-bound wooden bucket and at the south end there was an interesting complex made up of a bronze bowl (PLATE XII) with drop-handles containing a bronze hanging bowl of slightly smaller dimensions. Through one of the drop-handles of the outer bowl the shafts of three iron angons had been thrust, and with them lay four other iron socketed spear-heads which

had associated iron ferules some seven feet to the east, showing that they had been put into the grave mounted on their shafts. The bronze bowl was a degenerate copy of the well-known ' Coptic ' bowls of Anglo-Saxon archaeology, and the contained hanging-bowl was one of the finest of its type so far found in Britain. It had suffered a fair amount of corrosion, but its decorative features were in good condition. These consisted of three large round escutcheons holding the hooks for hanging the bowl, three functionless rectangular escutcheons occupying the spaces between the round ones, and the normal embossed decoration in the base of the bowl. All the escutcheons were enriched with the finest millefiore glass work and scroll designs. In this bowl were found the remains of a small five-stringed musical instrument and a bronze fish fixed to a bronze stem set up on the bottom of the bowl. The type and purpose of the instrument are obscure, but it may be suggested that it was used by a bard to emphasize the points of his song rather than as a real solo instrument. (See ANTIQUITY, VIII, 93–4).

Close to the iron stand and roughly parallel to it was a remarkable whetstone (PLATE III) 1 foot 9 inches long. It is square in section, tapering towards each end. The ends, which were painted red, have been carved into melon-like terminals originally enclosed by a number of bronze clasps supporting two shallow bowl-like features, also of bronze, the purpose of which is not clear. Each end of the stone is further decorated by four human heads carved in low relief, one on each face of the stone. The heads are mostly bearded and are executed with much skill and delicacy. The whetstone shows little sign of use although its material is admirably adapted for sharpening, and it was probably a formal object, its massive character reflecting the greatness and power of its owner.

Close to the whetstone on the east was a great bronze shield-boss (PLATE XV) and several associated mounts of bronze which had fallen from the decayed wood of the shield. The boss is a remarkable object of great size and weight. It has a domed form with a large circular escutcheon at the point. The decoration of this last has not yet been examined, but the surface of the boss is covered with an elaborate interlaced decoration which will probably be found to have suffered little when cleaned. Some traces suggest that it may have been enriched with gold leaf. The rim of the boss carries five large symmetrically disposed domed studs, and the whole is strongly reminiscent of the Vendel shield bosses. The mounts have not yet been examined but they appear to consist of at least two round gilt smaller bosses and two

different elaborate zoomorphic bronze castings much enriched with gold leaf. Some doubt exists whether the remains of a small decorated wooden box may not be mixed up with this. The iron hand-grip of the shield was in bad condition. Overlying the shield remains were the hopelessly decayed traces of a large thin wooden object, apparently subrectangular in plan and not less than 1 foot by 9 inches in area. Such wood as survived had a silky texture and the edge was beaded with gold leaf on a moulding of gesso. At set intervals there were projections from this edge into the field of the object, consisting of flat animal heads of gesso covered with gold leaf and fitted with eyes made of discs of garnet. The eastern part of this was completely wanting. Its purpose is unknown and it does not seem to have been stout enough for a gaming-board.

East of the collapsed wooden bucket and the bronze bowl-spear complex a slight amorphous hummock showed by its purple stain that silver was present. Upon excavation this proved to have been a nest of nine shallow silver bowls placed upside down (PLATES XIII, XIX). Two long-handled silver spoons (p. 53) were placed with the bowls beneath them and the handles sticking out eastwards. When the roof of the chamber fell the topmost bowl had been thrown off the pile and had been reduced to mere silver chloride at the time of the excavation. The topmost bowl of the eight was also in bad condition, but the remaining seven were very little affected and were for the most part as bright as on the day of their deposit in the grave. The two spoons were also in very fair condition.

We now come to the area where the body may be supposed to have lain had the burial been by inhumation. The seven feet of keel-line region east of the iron stand proved to be very rich in precious objects. To the south of the line lay a sheathed sword broken by the fall of the roof, to the north were the crushed remains of a remarkable helmet, and across the keel-line between the two were wonderful objects connected with the dead man's harness. These can only be described very generally here.

The outstanding objects were a pair of large gold clasps (PLATES IX, XX), richly decorated with cloisonné work and filigree, possibly from the shoulders of a leather cuirass (?), a massive gold buckle with broken interlace decoration picked out in niello (PLATE X, a), the gold frame of a purse (PLATE XI) with seven gold cloisonné plaques formerly sewn to its outer face, 40 gold Merovingian coins, two small ingots of gold contained in the purse, and a lesser gold buckle of fine design.

Besides these there were a number of rectangular gold plaques enriched with garnet cloisonné work, a jointed T-piece, a rich strap-end, and several lesser pieces of similar materials and workmanship. It is an interesting point that with almost the sole exception of the great buckle all these objects lay face downwards and may be presumed to have shifted slightly from their original place of deposit. Perhaps they were hung up and later fell.

The sword has a gold cloisonné pommel and the hilt was enriched by gold filigree work, while on the sheath were two gold hemispherical bosses of garnet cloisonné work (PLATE IX). The sheath was badly decayed; a white incrustation which has yet to be examined suggests that it may have been plated with ivory. The chape region was wrapped round with cloth, which may once have covered much of the weapon. Disposed on each side of the sheath by the hemispherical bosses were two exquisite pyramidical objects of gold cloisonné work which had presumably decorated the ends of a sword knot (PLATE IX). They belong to a type already known and more than once associated with swords. The whole group constitutes the most splendid collection of Anglo-Saxon jewellery ever found, and its more detailed consideration comes from Mr T.D. Kendrick elsewhere in these pages.

Parallel with, and to the south of the sword, was a much-decayed iron blade suggesting a scramasax, but without that weapon's distinctive features.

The helmet appears to have been completely smashed when the roof fell in and it is impossible to give any reliable idea of its appearance, but certain remarkable facts show that, when reconstructed, it will be one of the finest in the ancient Teutonic world. The headpiece was made of iron, which appears to have been enriched with gold and silver. There are signs of elaborate interlace decoration and there appear to have been ear-guards with silver beaded edges hanging on each side. The crest of the helmet was outlined with bronze zoomorphic fittings reminiscent of the elongated animal-heads found on the Vendel helmets, and a small bronze figure of an antlered stag mounted on a ring of iron found some three feet to the west of the main helmet ruin, may have been placed on the apex. The face-piece consisted chiefly of a remarkable bronze casting representing a nose, mouth, and moustache in one piece. This was in excellent condition.

Passing eastwards along the keel-line deposit a curious mass of starfish-like objects (PLATE IV) in badly corroded silver was next encountered. When two very rotten horns with silver mounts had been

found it was seen that the whole mass was the remains of similar horns hopelessly crushed and decayed. They were removed *en bloc* to the British Museum, where it has been found possible to copy the design (see p. 73) on the mounts. They are Anglo-Saxon work of indifferent design. There were plentiful remains of rotted textile here, and no doubt all the horns were once wrapped in cloth. Some way up the side of the boat, on the south side of the horn complex, were found the remains of an iron-bound wooden bucket in an advanced state of decay. This had been decorated with rectangular and circular bronze escutcheons, several of which appeared to show signs of much-decayed enamel.

Directly east of the horn complex came a great circular silver dish (PLATES XVIII) 28 inches in diameter. It has a heavy foot-ring two inches deep, and was placed on the top of a pile of miscellaneous objects into which it had been forced by the impact of the falling roof, while its edges had been bent over partially sealing down everything underneath. Stamps on its underside belong to the Byzantine Emperor Anastasius I, A.D. 491–518 (PLATE X, D, E). Under its western half was a smaller silver dish, also circular, gadrooned and decorated with a stiffly-executed female head of classical type embossed in the centre (PLATE XIV). In this were the remains of at least six small globular bottles with gilt bronze rims, apparently made from gourds. At least two were in fair condition. There was also a small plain silver vessel like a finger bowl with a foot-ring, and the remains of two combs. Pinched on to the foot-ring of the great dish by the impact of the falling roof was a small parcel-gilt silver dipper like a punch ladle with a short ringed handle. The greater part of the area under the big dish was occupied by a mass of rotted cloth (PLATE V) showing several different weaves and a fringe, two bundles of leather, at least one of which was a pair of shoes, and a lot of flock-like material, probably the stuffing of a small pillow. Directly under the foot-ring of the great dish was a small bronze hanging-bowl face downwards. It was in poor condition and had apparently been already damaged at the time of its deposit, for a leather lace was in position under the cavetto of its rim to hold it together, and it appeared that other laces had been used to suspend it. When the smaller silver dish was raised it was found to have been forced down into a large leather bag (PLATE XXI) fitted with two silver drop-handles attached by silver escutcheons of circular form. Its general form was that of a shopping bag, and the leather appeared to be of good quality with a grain like coarse morocco. A small bronze buckle and slider were attached to a thin strap which was probably used to give extra support to the bag when full.

Among the mass of textiles and leather already mentioned there were signs of another leather bag in a much worse state of preservation, and a small silver mount found probably belonged to it. When the textiles were lifted another bronze hanging-bowl was seen, also face downwards, and in a bad state of preservation. After all had been cleared it was found that an iron axe with handle two feet long lay under the southern edge of the great dish. It was made entirely of iron both in head and handle, but much corroded. Under the smaller silver dish and leather bag was a rusted mass which proved to be chain mail, already far gone in corrosion, apparently at the time of the fall of the roof, and so broken into lumps, but with the design of the work clearly recognizable.

Under all and resting on the bottom of the ship were traces of what was probably a large oval wooden trough carved from the trunk of a tree (PLATE XXIV).

Clear of the great dish and a few inches south of it lay a wheel-made pottery bottle of Jutish type, with a black internal stain, badly crushed, but quite capable of restoration.

A little east of this were some lumps of a black material, with a conchoidal fracture like pitch, which on analysis by Dr. Zeuner proved to be manganese oxide, possibly used as a base for making paint.

All across the east end of the chamber, reading from north to south, lay a mass of large collapsed vessels comprising the remains of a large wooden tub with iron reinforcements and handles, a large bronze cauldron with iron ring handles (PLATE XVI), a medium-sized bronze cauldron, and a smaller one. The large cauldron was badly folded up by pressure though it should be capable of reconstruction; but the two smaller ones were smashed to atoms and their only tolerably intact parts were the rims, which had been turned outwards over a reinforcement of thick twisted iron wire.

Just west of the wooden tub and large cauldron was a mass of ornamental iron chain-work, probably tackle for hanging the vessels over the fire. On the ruins of the great cauldron lay three fair-sized oak pegs, pointed at each end and resembling the wooden ' cats ' in the game of Tip-cat. Two were in very fair preservation and their condition contrasted strongly with the almost complete disappearance of all other wood. Their purpose is unknown. They may be some rough materials left about by the builders of the chamber, for a careful examination of a few wood scraps found showed that some of them

were sawn-off ends produced in trimming up the boards. Their remarkable condition may be due to their closeness to much bronze.

Between the medium-sized cauldron and the great silver dish was a curious, much corroded, iron object like a cup on a short stand with three or four feet. The outside of the cup was reinforced by four iron bands and the inside divided up into segments radiating from the centre by a number of thin iron partitions. The spaces between these were filled with a whitish concretion. This was probably a lamp, and has many points of similarity with the iron lamp found in the comparable but much poorer Saxon grave at Broomfield in Essex.

This completes the tale of objects found in the grave as far as can be known at this stage. Several remarkable facts emerge from a consideration of their arrangement. The main one is the total absence of any human or animal remains. No sign of cremated bone was seen, and not even a tooth rewarded a close search. It seems safe to say that cremation was not the rite practised at Sutton Hoo, for in that case the burnt bones might be expected to be placed in one of the various rich receptacles found in the grave. Even if not inurned the well-known resistant qualities of burnt bone should have ensured the survival of enough fragments to make out a case for cremation. Sand is a notorious consumer of organic remains ; but if the bodies of horses had been included in the deposit, dense and resistant object like horses' teeth should have been found if no bones had survived. It may be suggested by some that the body of the dead man was placed along the keel-line at the west end of the chamber among the many rich objects deposited there. There can be no doubt that the burial party regarded this part of the chamber as being the most important, but the awkward fact persists that no single object was found which might have been personal to the dead man. There was no ring and no pendant, nor were there any of the small metallic objects which might be expected to survive the decay of the clothes on a body. Again, the arrangements of the rich objects in the neighbourhood of the sword does not suggest that they were actually put into their proper places on an actual body, but rather that they were laid down formally in a general relationship to a purely fictitious corpse. In other words the whole grave may be a cenotaph erected to a great man whose body was irrecoverable for burial, possibly lost at sea. It is an interesting point that in the Broomfield grave there was no sign of a body, and a reading of the report in which the excavators suggest that a number of traces of carbon and soot

implied a cremation leads to the suspicion that traces of decayed woodwork were mistaken for those of fire. Much at Sutton Hoo which was certainly the last vestiges of wood naturally decayed in the sand would have appeared as soot and fire charcoal to the inexperienced.

Against all this we must recall that the burial in the Snape boat may have been a cremation, and that here a fine late Roman gold finger-ring was found. Also in two of the smaller Sutton Hoo barrows opened in 1938 cremations were found; but the Sutton Hoo ship-burial contained no trace of a cremation, and in the absence of obvious features of an inhumation we are compelled to fall back on the cenotaph theory.

The Ship (plates vi–viii)

The following remarks about the ship are of a provisional nature only. Lieut.-Commander J. K. D. Hutchison was in charge of this part of the excavation and resumed service with the Royal Navy upon the outbreak of war. He has thus had no opportunity of dealing with the ship, but we hope that it will be his task to give an authoritative account of the boat at a later time. Meanwhile, with his consent, the writer is attempting a layman's account of this technical matter so that some broad facts about the boat may be known without delay.

The Sutton Hoo ship is a great open rowing boat 80 feet long as traced in the ground, and probably 85 feet overall when both bow and stern were complete. Its greatest beam is 14 feet and its depth 4 feet, its prow rising to a probable height of $12\frac{1}{2}$ feet above the level of the keel-plank amidships. It is clinker-built without permanent decking and carrying no mast or other arrangements for sailing. The hull is stiffened with 26 ribs and the boat was propelled by 38 rowers. In the early stages of the excavation it was confidently expected that the burial would prove to be of Viking Age, but as the work progressed certain features made this less likely, until it became quite clear from its construction, apart from the age of the articles in the burial deposit, that the ship belonged to the pagan Anglo-Saxons. The first clue to this was the number of the strakes. While the burial-deposit was in the ground it was not possible to make the examination of the keel which would clear up many doubtful points, but it was plain that the ship had no more than nine strakes including the gunwale, a number barely half that found in ships of the Gokstad and Oseberg type. Further, the strakes were broad and there were no signs of mast supports and other sailing tackle amidships. It was improbable that these had

been removed and they were not removed in the Viking-ship burials even though their bulky presence complicated the placing of the funeral deposit.

At an early stage, therefore, the excavators were compelled to look to the Nydam ship, now preserved in the Kiel Museum, for a prototype.[2] This famous vessel was found with two others in the Nydam bog in Schleswig in August 1863. It was the main feature of a great votive deposit of vessels and arms and was in a very fair state of preservation. It has since been magnificently reconditioned and displayed in the Kiel Museum.

The Nydam boat may be confidently dated to the close of the fourth century A.D. The main features of its construction are that it is a large keel-less open rowing boat 73¾ feet long with a beam of 10 feet, and a depth of 3.7 feet. It has six strakes from keel-plank to gunwale made of single oak planks from bow to stern in every instance except the gunwales, which have been pierced at the forward ends. This involved cutting out planks averaging 14 inches broad and 1 inch thick with lengths equal to that of the ship, besides working out a series of cleats on their inner sides from the solid wood to which the ribs were lashed. The boat's hull was clinker-built, the fastening being iron nails. The stem and stern posts were joined to the keel-plank by treenailed scarves, and the strakes were nailed to them in grooves cut down the edges of the posts to receive their ends. The whole hull of the boat, leaving aside the internal framework, consisted of no more than 17 pieces of wood, including the shorter pieces used to eke out the gunwales forward.

Internally the hull was braced by 19 ribs made of grown pieces of wood running from gunwale to gunwale and attached closely to the strakes by lashings passing through the two cleats left standing on the inner side of each strake. These ribs were spanned by thwarts resting on the heavy gunwale cleats supporting the rib ends and further held up by three, two, or one vertical stanchions depending for their number on their position in the ship. The thwarts had rowers' seats fixed to them, and lashed to the gunwales were 30 thole-pins, 15 a side. They have a very distinctive claw-like form and were made from natural forks of timber.

The boat was steered by a broad, specially adapted oar, worked by a tiller over the starboard side at the stern and it is probable that there

[2] H. Shetelig and Fr. Johannessen, *Acta Archaeologica*, 1930, I, 1–30.
Conrad Engelhard, *Nydam Mosefund*, 1859–63. Copenhagen, 1865. *Denmark in the Early Iron Age*. London, 1866.

was a small platform set in the stern for the steersman ; otherwise the ship does not appear to have contained anything except possible bottom boards, oars, baling scoops, and a quantity of stone ballast which, it is thought, was kept from shifting by a compartmented arrangement of wicker-work on the bottom. Although only a few stones were found at the time of the excavation it is plain that the ship would have been almost unmanageable without ballast, probably at least one ton in weight, for although the Nydam ship is a most impressive piece of craftmanship, its narrow sharp lines and absence of grip on the water must have made it an unstable vessel.

However this may be, it is certain that it was in fleets of boats of this general type that the Anglo-Saxon invaders reached the shores of Britain, and for this reason it was likely to be a prototype of many of the boats which they built when fully established in their new home. This question is one which must be treated with caution, for it would be wrong to suppose that at the time of the Anglo-Saxon invasions there were no sailing ships in the North. When dealing with boats used for burials we are concerned with aristocratic craft, probably used almost exclusively for war, always making the important exception of the Oseberg ship which was a queen's state barge. It would be rash to assume that these burial craft told the whole story of the ship-building of their time, and a discovery like that of the wrecked boat at Galtabäck on the west coast of Sweden comes to remind us that there was an extensive class of cargo boats as well.[3] This vessel has been dated on pollen analytical grounds to the fourth and fifth centuries, which makes it more or less the contemporary of the Nydam boat. It differs from the latter in several ways : by being arranged for sailing ; by having a more composite construction ; and by having a keel. Many of these features of the Galtabäck boat are in an early stage of development, but they mark a great technical advance on the Nydam ship. It is also worth recalling that the account of the ship-burial in Beowulf, lines 26 to 52, tells us that the ship was fitted with a mast. In this case the burial was accomplished by setting the ship adrift, so that the use of a sailing ship, if one was to be had, is not surprising.

The Anglo-Saxons must also have come upon a certain number of boats belonging to the Romano-Britons, some of which are likely to have been sailing craft with a Mediterranean ancestry.

[3] *Galtabäcksbåten och dess Restaurering*, by N. Niklasson and Fr. Johannessen. Goteborg Museum, 1933.

We can thus say that the Sutton Hoo ship appears to belong to what may be called the Nydam line of development, though there may have been other types co-existent with it. Looking at our ship and considering the royal character of the things deposited in it, we cannot dismiss the possibility that it was a state barge like the later Oseberg ship, and that it may have been contemporary with ships of a considerably different type designed for other more ordinary purposes.

The boat was not new when buried. This may be judged from repairs which could be clearly traced in the hull. The most notable was a doubling of the frequency of the clench-nails along the junction of strakes 4 and 5 on the port side amidships. There was also a small tingle in this region and altogether it appeared that the ship had suffered heavy damage here. There is nothing novel in the use of a part-worn ship in a burial. The Gokstad and Oseberg ships were both past their prime and if the Sutton Hoo interment can be dated round about A.D. 630 it may be that the boat was at least 30 years old and even belonged to the previous century.

The Sutton Hoo ship shows many advances on the Nydam prototype but, as far as can be seen, it was not making that advance towards keel-construction which is plainly seen in other older boats in Northern Europe. The lines of the ship show a great improvement in form which would increase the ship's stability. Further, the Sutton Hoo ship-wrights were gaining a greater confidence in handling their materials, for the boat has nine strakes to the Nydam's six, and instead of being monoxylous they were made up of four or five pieces joined together from stem to stern. These joints seem to have been of overlapping type and were secured by four clench-nails. Even so, allowing for the greater size of the Sutton Hoo ship, the pieces of wood were very large, and their breadth was not less than 1 foot 3 inches while their thickness was not less than 1 inch.

The strakes were clinkered together with iron clench-nails. These were evenly spaced about 7 inches apart and had a length of about 2 inches. On the outside of the ship the nail had a slightly domed circular head $1\frac{1}{4}$ inches in diameter, and on the inside it has been riveted over a diamond-shaped iron rove measuring 2 inches by 1 inch. All the nails were in an extreme state of rust and it is doubtful whether any metallic iron remained, though the form was readily recognizable and all the nails were exactly in their places except in the burial-chamber area, where the sides of the boat had been exposed to decay for many years without that complete inclusion in the sand which made it

PLATE I



VIEW OF CLAY PAN FOUND ABOVE THE SITE OF THE BURIAL CHAMBER (*see* p. 12)
Ph. C. W. Phillips

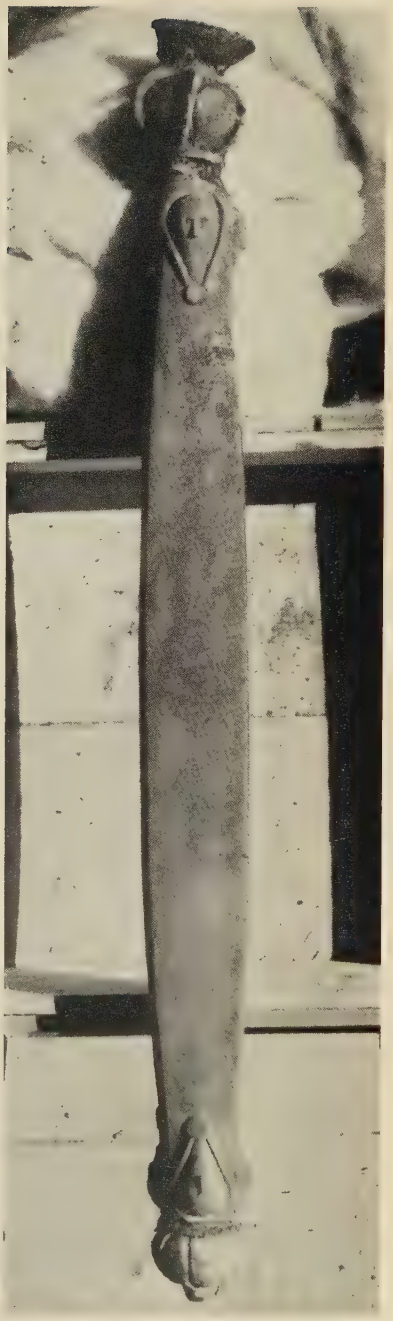
facing p. 24



IRON STAND AFTER CLEANING (*see* pp. 14, 71)
Ph. O. G. S. Crawford



BRONZE MOUNTED TERMINAL OF THE WHETSTONE (*see* p. 15)
Ph. O. G. S. Crawford

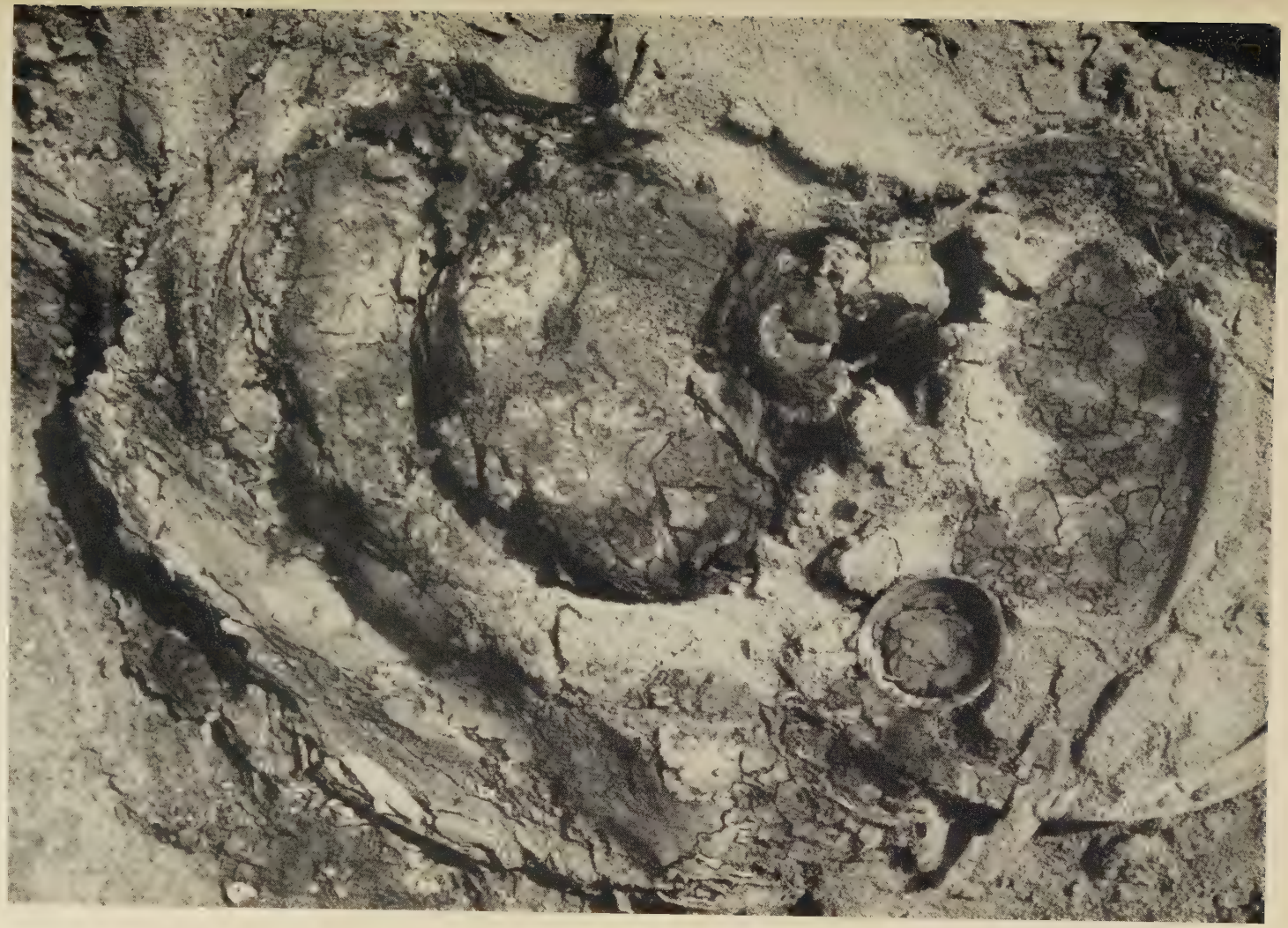


THE WHETSTONE (*see* p. 15)
Ph. O. G. S. Crawford

PLATE IV



CRUSHED HORNS AND SILVER MOUNTS (*see* pp. 17, 18, 73)



THE DEPOSIT IMMEDIATELY UNDER THE GREAT SILVER DISH SHOWING IN THE CENTRE THE IMPRESSION OF THE FOOT-RING.
On the right the smaller silver dish, small silver bowl, and one of the gourd bottles. In the centre is leather, cloth, and pillow stuffing (*see* pp. 18, 70)
Ph. O. G. S. Crawford



PLATE VI

GENERAL VIEW OF AFTER-PART OF THE SHIP (*see* pp. 21–26)

The apparent ribs are masses of sand enclosing traces of the actual ribs, and cut away along the bottom in order to study the nailing



VIEW OF THE STERN OF THE SHIP SHOWING TWO RIBS WITH EXTRA STRENGTHENING ON THE STARBOARD SIDE FOR SUPPORT OF THE STEERING OAR. (Metric scale). (*see* p. 25)

Ph. C. W. Phillips



THE BOW OF THE SHIP FROM THE PORT SIDE (*see* p. 26)
Ph. C. W. Phillips

impossible for them to move in the fore and aft parts of the ship, even when all wood had completely rotted.

It is unfortunate that nothing definite is known about the form of the gunwales except that the tholes, which were of the Nydam type, were spiked to them directly instead of being lashed. The spikes, which are $6\frac{1}{2}$ inches long, were driven vertically into the gunwale in pairs at each end of the thole base. This implies that the gunwale had a considerable thickness, and the close setting of the groups of spikes also suggests that the tholes must have stood so close together that they formed an unbroken feature of the upper edge of the gunwale. The tholes could be clearly seen as dark stains of the characteristic Nydam form even though no scrap of wood remained. It was even possible to think that some of them showed signs of wear. The hole bored through the claw of the thole, which is a feature of the Nydam boat, could not be seen though its original presence is quite probable. The number of ribs is 26. With few exceptions these are equally spaced about 3 feet from each other, but variations occur at bow and stern. Unfortunately nothing remained of the wood of the Sutton Hoo ship but films of darkened sand, though the form of the ribs could be fairly accurately judged in their broader lines, and it was plain that they decreased in width as they approached the ends, which were joined to the skin of the ship by extra long clench-nails of iron. At all other points the ribs must have been lashed to cleats left standing on the strakes as in the Nydam ship. No satisfactory trace of this could be seen, but as clench-nails holding the skin of the ship together regularly occur under the ribs there can be little doubt that the Nydam method was used. Certainly the ribs were only nailed at their ends. This is an interesting feature in early northern boat construction as lashings are used throughout in the Viking ships.

At first it was thought that the ribs had probably been removed from the burial chamber part of the ship, but since the end-nails were found in position this can hardly have been the case.

There was a special development of the ribs in the stern. Here a closely-set group of three occurred (nos. 24–26, PLATE VII). Of these 24 and 25 were asymmetrical with heavily clubbed ends on the starboard side. These ends were held to the skin of the ship by a quincunx arrangement of five large nails. Unfortunately there was no trace of a steering oar nor was there any evidence of how one was fixed, though it may be stated fairly confidently that there was also no obvious sign of the large external wooden button on which steering oars of the

Viking type moved. We must therefore suppose a large broad bladed oar of the Nydam type, suspended over the starboard gunwale by a cable secured to a rib and knotted through a hole in the blade, the pivotal action of the oar being achieved by its passage through a heavy loop of leather (?) attached to the gunwale between the two thickened ends of ribs 24 and 25. A tiller handle would be fixed to the end of the oar loom, and the oar may have had its blade protected by a batten pinned to its inner side to prevent wear on the stern post of the ship when the needs of steering carried it under the ship's side. We may also suppose that there was a small platform in the stern for the steersman.

Both the stem and the stern posts of the ship were so far gone in decay that little can be said of them. They presented quite sharp edges to the water and must have been very substantial, but we cannot tell whether they had any decoration or whether they were bored with holes for possible towing and hauling on shore as in the case of the Nydam ship.

The plan of the ship shows several interesting features. The gunwale plan has a tendency towards re-entrant curves at bow and stern, quite different from the pure curve of the Nydam ship's gunwales. Those who have seen the drawing of the Snape Common boat have been puzzled by its rounded stern. This is contrary to what our information has led us to expect in ships of the Dark Ages when equal ends, both sharp, were the rule. It seemed probable that the excavator had misunderstood what he saw, but now the Sutton Hoo ship appears to present a similar feature. It is a misfortune that the end of the stern has been disturbed by the plough, protruding as it does far beyond the modern limits of the barrow. The run of the two gunwales suggests that they may not have met in a point but curved round in a small counter. This point can never be decided, but the Snape Common boat's plan gains in authority from this fact.

Nothing remained of the internal fittings of the Sutton Hoo ship beyond the ribs and a continuous trace of something like a side seat about 18 inches wide which ran all along the port side below the gunwale strake. The run of this feature was broken by the burial chamber, but otherwise it was constant. It may have been a sequence of pieces of light movable decking of the sort which could be put in or taken out between the thwarts of the Gokstad ship. Its survival may be due to its closeness to the side of the ship, though none was seen on the starboard side. Here and there faint traces of decayed wood appeared

inside the body of the boat, but nothing could be made of them. One curiously shaped trace in the stern may have been the remains of a large baling scoop, or perhaps a workman's tool tray. There were no signs of thwarts though the ship must have had them. It also seems certain that no oars had been placed on board, and the closeness of the ship's sides to those of the trench made it impossible for them to have been put in their places over the gunwales. If placed on board their collective mass of 38 pieces of wood, many of them as much as 12 feet long, would have left no trace. The same may be said of the steering oar. There was no anchor, nor was the ship moored in the grave as in the case of the Oseberg ship. The posture of the ship was abnormal in that its stern was presented to the nearest water, the river Deben, and not its bow as might have been expected. The Viking north-south orientation was not followed.

A comparison of the lines of the Nydam ship with those of our vessel shows that there had been a great advance in the two centuries which may be supposed to have elapsed between their building. The Sutton Hoo ship is a far more seaworthy craft, though it has not yet made the great change in keel design which heralds the use of sail. It may be said that with this exception the construction of its hull is rapidly approaching the form and technique of Viking times. The East Anglian ship-wrights had more confidence in their building methods and did not rely so much on large undivided pieces of wood as did the builders of the Nydam ship. It cannot be said that the Sutton Hoo ship suggests stagnation in Anglo-Saxon England's ship-yards. At the same time naval architecture may have become unprogressive in the next century, so that by the time of the Viking raids the inhabitants were at a grave disadvantage on the sea when attacked by the fine sailing vessels which the northern yards were then producing.

Our ship is a truly impressive monument and the most notable object in the pagan Anglo-Saxon archaeology of England.

The Sutton Hoo Ship-Burial

II. The Gold Ornaments, by T. D. Kendrick

MOST of the gold ornaments represent the very splendid outer harness of a princely apparel, doubtless the sword-belt and baldrick, and also a purse and the straps on which it was slung. From the point of view of sheer weight of gold, the chief find was a huge and heavy buckle, inlaid with niello ; but the harness included twenty-eight other pieces, all richly jewelled with garnets and, in some instances, blue and white mosaic glass. We must remember too that the sword has a jewelled gold hilt and two hemi-spherical bosses of gold, jewelled with garnet and blue glass, on the sheath (PLATE IX). There are also a number of minor fragments of gold, including one or two unornamented strap-mounts, two jewelled filigree strips of great delicacy, and a tiny mount of gold foil in the form of an animal. The excavators also found various ornamental fittings of wood or a similar material that were plated with gold.

The great buckle (PLATE X A), 6 inches in length, is chased with intricate animal-patterns and interlace, and is further decorated with a lavish and admirably executed niello-inlay. It very easily outclasses in gold value any other Anglo-Saxon ornament known to us, and its decoration is in the highest degree unusual ; but we have seen before, on the mounts found at Caenby, Lincs., the little animal crouching at the very end of this magnificent object. For the rest, we can only say that the main system of animal ornament strikes us as having a markedly Vendel (*i.e.* Swedish) character. The big shield-boss also reminds us of the finds from the Vendel graves, so we cannot fail to attach importance to the extent to which this new Suffolk archaeology is influenced by fashions that seem in origin to be Scandinavian.

The pieces that many regard as the most amazing finds are the two hinged clasps (PLATES IX, XX), each of which is $4\frac{3}{4}$ inches in length. They have a fastening pin attached by a chain, both of gold, and the head of the pin is fashioned in the form of a jewelled animal mask. The faces of the clasps bear rectangular panels of step-pattern cloisonné containing garnets and blue and white mosaic glass, and the borders of these rectangular areas bear a complicated interlacing animal-pattern

that is done in a remarkable sunk cell (champlevé) garnet-inlay. It is an astonishing technical performance, peculiar to Sutton Hoo; and a glance at the patterns shows that the skill of the lapidary must have been of the highest order. The curved ends of these clasps bear a design made up of pairs of linked boars with crested backs, again sumptuously jewelled and having tiny stylised animals in filigree in the background spaces. These tusked and crested boars are new in our Pagan Saxon art, but we may surmise that they long remained a favourite subject in this region, for one of them appears again on the eleventh century Saxon tympanum at Ipswich. Another most interesting point about these clasps is that the main ornamental system, the rectangular space of geometric decoration with a surround of interlaced animals, seems to be a pagan forerunner of the type of ornament subsequently used to decorate the pages of Hiberno-Saxon manuscripts.

The most gorgeous, and now the most popular find, was the jewelled frame and mounts of a purse-flap (PLATE XI), measuring $7\frac{1}{2}$ inches in length. It was set with garnets and glass, and enriched with filigree, and has three hinged fastenings for straps, and an admirably efficient sliding clasp for opening and closing the purse. The face of the flap was ornamented with seven small jewelled plaques and four jewelled studs. The central mount in the upper row has symmetrical pairs of opposed animals with interlacing limbs, the two middle animals being linked together back to back. This is set between a pair of hexagonal mounts notable for their extremely intricate and delicate cloisonné. In the lower row there is a central pair of mounts, apparently representing a falcon seizing some lesser bird, and two flanking mounts that give us a stylised representation of the 'Daniel in the Lions' Den' pattern that is not uncommon in Merovingian art. These last two mounts, and the central one in the upper row, afford further instances of the use of the champlevé technique. Thus the features of the Prophet are minute little pieces of garnet sunk into the face of the gold plaque. It requires little imagination to picture the complete purse, which contained 40 gold coins and 2 little gold ingots, as one of the most extravagantly sumptuous trappings that a Teutonic grave has ever given to us.

Most of the other ornaments are buckles (PLATE X B) and strap-mounts (PLATE X C) and the like. They are set with garnets only, but many of them are most handsome and precious pieces that present us with numerous cloisonné patterns of surprising originality. Thus one pair of rectangular mounts bear an interlace design, a twist, done in cloisonné, and others present us with a variety of themes that make

much use of a characteristic mushroom-shaped cell. This is by no means a common kind of cell in Anglo-Saxon cloisonné elsewhere, and it therefore helps us to define the new Suffolk school.

Among these lesser mounts are two little pyramidical gold studs bearing cloisonné inlay and having the edges cut out of the solid garnet. On the top of each is a dainty square of mosaic glass. The backs are slotted for attachment to straps, and as they were found one on each side of the sword, we can assume they decorated the sword-knot. In spite of their small size, they illustrate perhaps better than any other piece, the splendid precision and great ingenuity of the Suffolk Hoo jeweller. All the gold ornaments seem to have been made at the same place and at the same time, and these two tiny mounts plainly show that we have now revealed to us the work of one of the greatest craftsmen in the whole Teutonic world.

III. The Large Hanging-Bowl*

by T. D. Kendrick

(plate xii)

The largest of the hanging-bowls from Sutton Hoo is distinguished by the abundance and the brilliance of the mosaic glass adorning its mounts, and by the mannered drawing of its delicate Celtic scroll-patterns. The character of the mosaic glass links this bowl very closely with the newly discovered bowl from Scunthorpe, Lincs., and, but less closely, with the bowl from Barlaston, Staffs., and the bowl represented by the Northumberland escutcheons in the British Museum. Only the Scunthorpe bowl, however, bears mosaic of comparable elegance, and it is also much closer to the Sutton Hoo bowl in its ornamental style. This Celtic style has been studied by Mr Leeds[1] and Françoise Henry,[2] and, therefore, to Sutton Hoo and Scunthorpe we can add as further representatives of the same school of design the well-known Faversham mounts,[3] the escutcheon from Barrington, Cambridge, the enamelled bronze vessel from Needham Market, Suffolk, and the escutcheon from Benniworth, Lincs. The bowl from Bagington,

* For details of the escutcheons and mounts see *British Museum Quarterly*, 1939, xiii, pl. li.

[1] *Celtic Ornament.* Oxford, 1933.

[2] *Journ. R. Soc. Ant. Ireland*, 1936, lxvi, pp. 225 ff. [3] Leeds, fig. 39 a and b.

Warwickshire, is a near relation, and so probably is the Basingstoke bowl. The group is, accordingly, principally eastern and midland in distribution, and has only a rather dubious extension north of the Humber.[4] With the possible exception of the Benniworth escutcheon,[5] none of the enamels shows the influence of the flamboyant designs of the ' developed trumpet-pattern ' school, as represented by the Winchester bowl and the Oxford escutcheon ; but there is some evidence of a connexion with the Kentish ' Roman ' series of the Dover type, for instance little groups of floating leaves on the escutcheons of the Scunthorpe bowl. This helps to tie down the Celtic group of bowls to the Lowland Zone. But more important is the Sutton Hoo evidence that mosaic glass of the sort used to decorate a hanging-bowl was also employed in the manufacture of the local Teutonic jewellery. It is difficult to interpret this otherwise than as an indication that the bowl was made in or near the neighbourhood in which it was found ; and this means that the whole group of Celtic bowls is given a vague, but valuable, local focus.

On the Sutton Hoo bowl, the scroll-work has as its principal pattern a delicate ' hair-spring ' coil[6] with a ragged interior terminal (FIG. 2). This is a pattern with a back-ground that is well known, and in origin it is generally believed to be connected with the Late Roman embossed brooches that come mostly from northern England.[7] In the Dark Ages it is to be found on Hiberno-Scottish bronzes, the most notable example being a celebrated latchet now at Dublin.[8] Numerous scroll-patterns that are obviously of the same style are to be found on the early penannular brooches and the ' hand-pins ' of Ireland, and a glance at Mr Leeds's book and Françoise Henry's writings makes it immediately plain that the Celtic art of the bowls in England has an Irish counterpart that is geographically independent of the Pagan Saxon world. It would be a waste of time to suggest that a hanging-bowl found in East Anglia came from Ireland, or that the Dublin latchet was made in Suffolk ; for the Sutton Hoo bowl is as distinctively an English product as the latchet is an Irish one. We can, however, reasonably ask whether the ornamental scroll upon these objects travelled from one region to the other ; or whether the bond between

[4] Françoise Henry includes the bowl from Capheaton, Northumberland. The British Museum escutcheons from the same county are stylistically only distant relatives.

[5] *Antiquaries Journal*, 1936, XVI, p. 98.

[6] Kendrick, *Anglo-Saxon Art*. London, 1938. p. 54.

[7] Leeds, p. 142 ; Kendrick, p. 39. [8] Leeds, fig. 36.

them is simply the appearance on both of a pattern independently derived from the same Romano-British source.

This particular pattern, the hair-spring coil with the ragged terminal, plays a prominent part in the seventh and eighth century ornament of Christian Ireland and of the Columban church. It appears, for instance, in the trumpet-pattern page of the Book of Durrow and in the trumpet-pattern designs on the back of the Tara Brooch. Moreover, the development of the Irish pattern in its known stages, (i) latchet, (ii) Durrow, (iii) Tara Brooch, is intelligible and satisfactorily complete. How the hair-spring scroll comes to be thus combined with the ' developed trumpet-pattern ', we need not now enquire. It is sufficient to note that the fusion seems to have been an Irish achievement, and has taken place before the painting of the Book of Durrow. Our interest here must be centred upon the hair-spring scroll itself, and the possible migration of this pattern from Lowland England to Ireland, or *vice versa.*

I think it can be satisfactorily maintained that the pattern as seen on the Irish latchet is closer to its prototype on the embossed brooches than is the related pattern on the Sutton Hoo bowl. On the evidence before us, this means that the latchet may be said to possess a stylistic priority, and it is therefore impossible to entertain the idea that the pattern on the English bowl is the source of the Irish ornament in question. It may be added that in my own opinion there is a considerable archaeological probability that the latchet is earlier in date than the bowl.

On the other hand, it is equally difficult to believe that the Irish design travelled to eastern England and inspired the maker of the Sutton Hoo bowl. There is, of course, a very remarkable link between the Columban church and the Sutton Hoo area ; because in 635 Aidan founded the Columban monastery of Lindisfarne in Northumberland, and in 654 Cedd, a Northumbrian from Lindisfarne, began his mission to the East Angles. And we know that in the preceding year both the King of the East Angles and the King of the Middle Angles had visited the Northumbrian court. But the visits to Oswy and Cedd's mission took place at too late a date for us to suggest that they explain the appearance of a particular kind of ornament in the Sutton Hoo barrow.

All these considerations seem to show, therefore, that we must regard the Sutton Hoo hair-spring scroll as an independent, more mannered, and very distant, variant of the ornament on the Irish



THE SWORD: HILT AND SHEATH (*see* pp. 16, 17, 28, 72)
The Gold Clasps (*see* pp. 28–9 *and also* plate XX) are on the right
Ph. O. G. S. Crawford

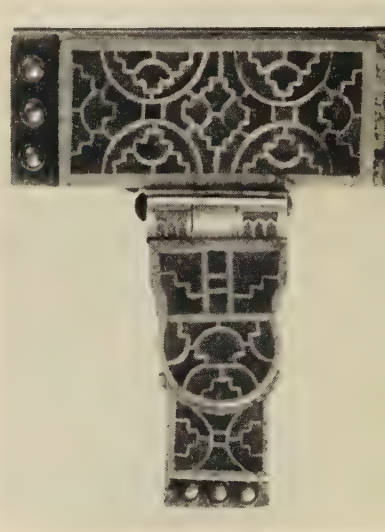
facing p. 32



A



B



C



D



E

A. GOLD BUCKLE WITH NIELLO ORNAMENT (*see* p. 28) B. JEWELLED GOLD BUCKLE (*see* p. 29)
C. JEWELLED STRAP-FITTING: WITH HINGED TONGUE AND MOVABLE END HANGING FROM ITS SIDE (*see* p. 29)
D, E. CONTROL STAMPS OF THE EMPEROR ANASTASIUS I ON BACK OF THE SILVER DISH (PLATE XVIII) (*see* pp. 18,

By permission of the British Museum

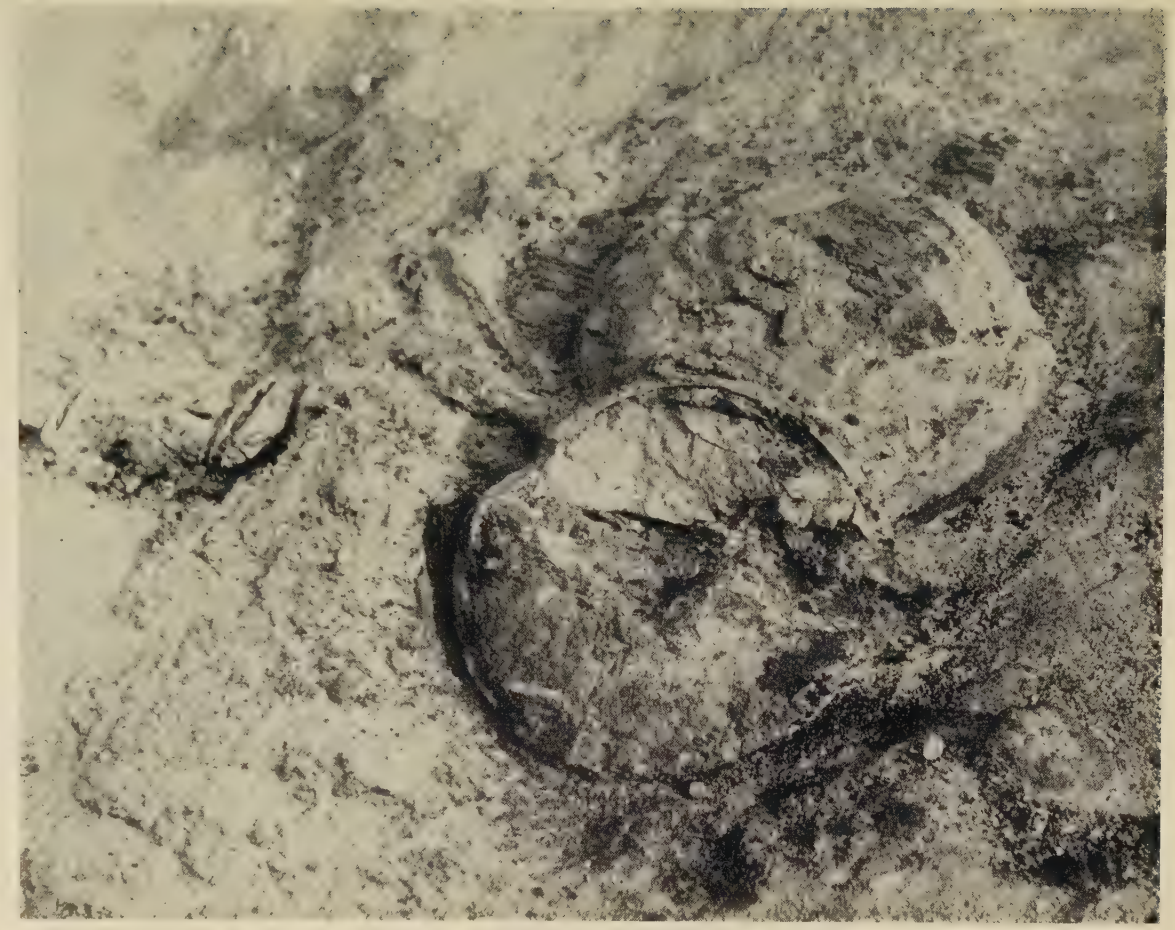
PLATE XI



PURSE MOUNT OF GOLD AND JEWELS (*see* pp. 16, 29, 37)
By permission of the British Museum

PLATE XII

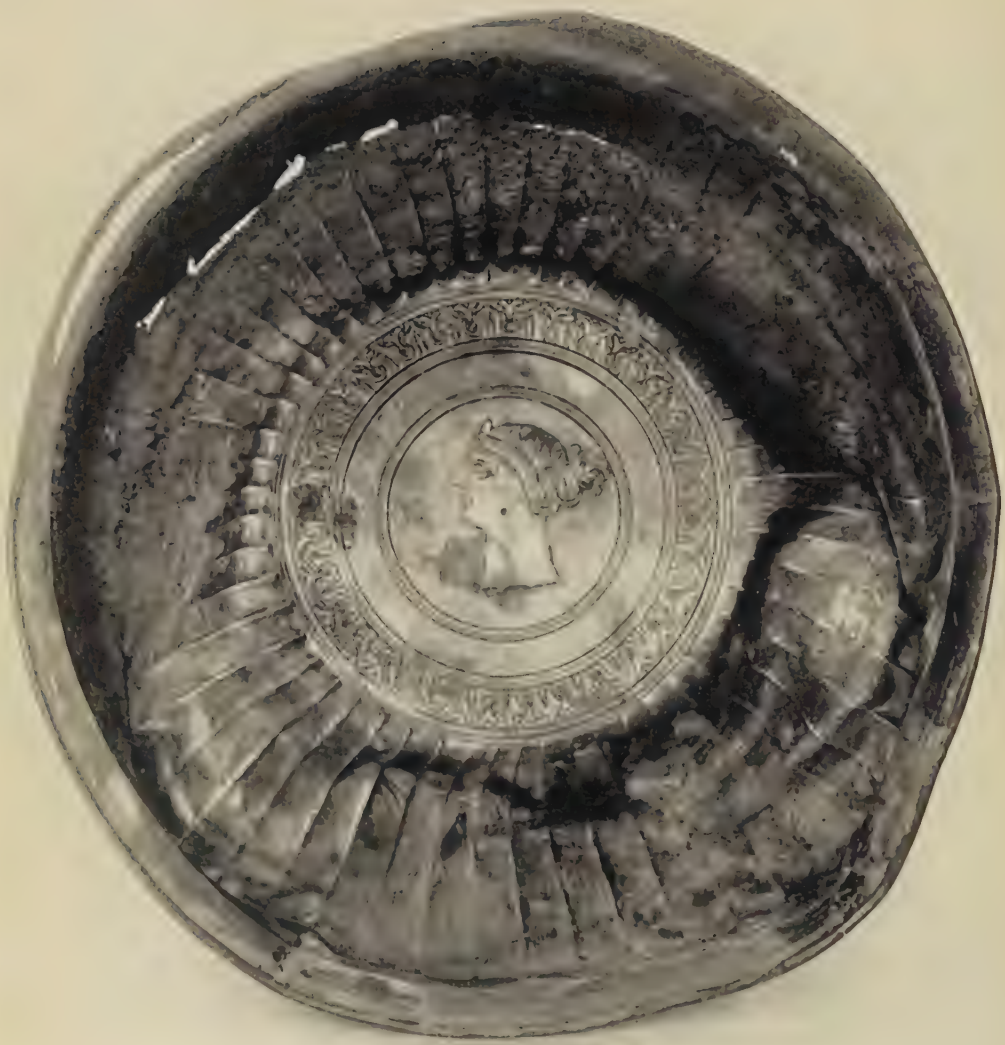




NEST OF INVERTED SILVER BOWLS (*see* pp. 16, 52, 72). RIM OF SINGLE DETACHED BOWL IN FOREGROUND; THE SWORD-HILT AND SPOONS ARE ON THE LEFT

Ph. O. G. S. Crawford

PLATE XIV



SILVER BOWL WITH CLASSICAL HEAD IN MEDALLION (*see* pp. 2, 18, 50 and PLATE V)
By permission of the British Museum



THE SHIELD-BOSS AND ASSOCIATED ORNAMENTS (*see* pp. 15, 73)
Ph. O. G. S. Crawford

PLATE XVI



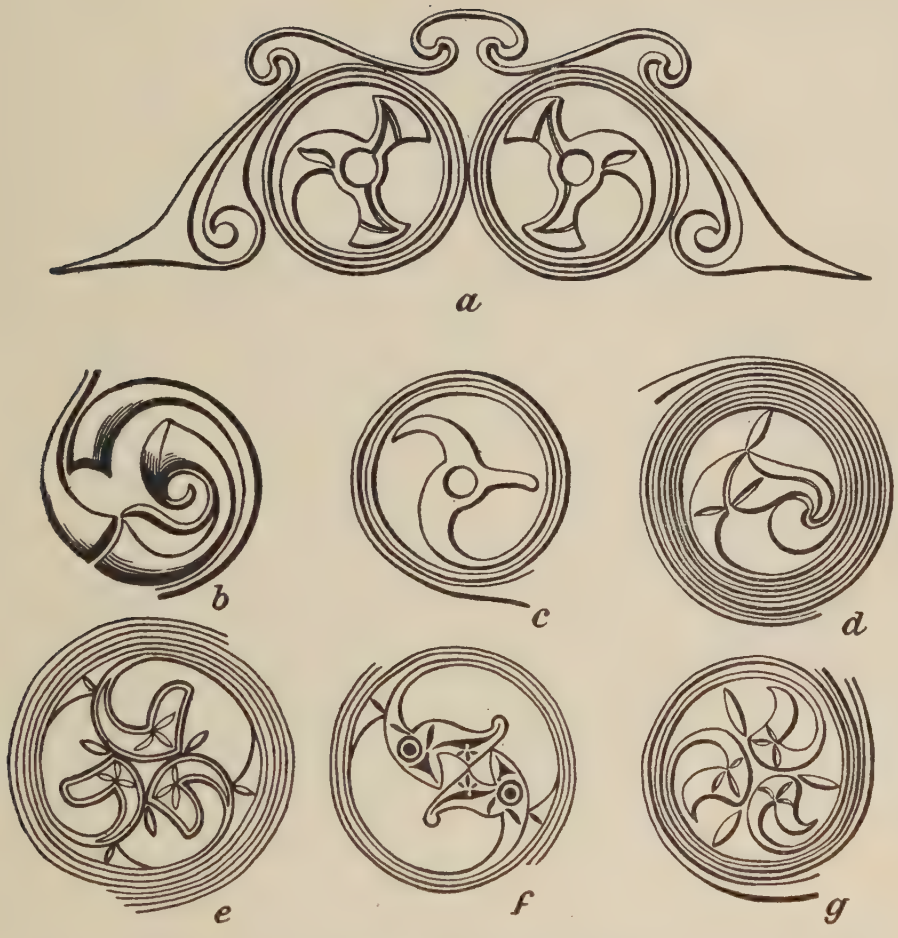


FIG. 2. EXAMPLES OF THE 'HAIR-SPRING' SCROLL IN METALWORK AND MANUSCRIPTS

(a) Hanging Bowl, Sutton Hoo (b) Late Roman embossed Brooch, Silchester (c) Bronze Latchet, Dublin
(d) Book of Durrow (e) Lindisfarne Gospels (f) Lindisfarne Gospels (g) Tara Brooch

latchet. But we may still ask if Lindisfarne does not show some sign of being influenced by the English designs made accessible after its foundation as a Columban monastery. We do, in fact, find that the hair-spring scroll occurs in the trumpet-pattern of the Gospels (*c.* 700) ; but to my mind there is no doubt that this particular ornamental element must be accepted as an entirely Columban feature. The reason I say this is because the hair-spring scroll in the Lindisfarne Gospels is almost exactly the same as that on the back of the Tara Brooch. This seems to me to be decisive. If it be argued that as the Gospels were illuminated some sixty years after the foundation, there is opportunity for an English form of the pattern to have reached the monastery at an earlier date, I can only reply that this would presumably have resulted in the Gospels showing some signs of this southern disturbance in the Columban development. But there is no evidence of interruption. The Northumbrian hair-spring scroll is purely Irish.

The independence of the English style is perhaps reflected also in the richness and sumptuous character of the Anglian mosaic glass inlay, which has a greater and more emphatic magnificence than that of the early Irish hand-pins and penannular brooches ; a splendour, in fact, that does not fall far short of the standard set by the flashiest of the Roman mosaic brooches. The vitality of this surviving glass-industry in the British background to Saxon England seems to me to be a most significant new fact. We certainly cannot pretend to disbelieve in the existence of such an industry, now that we know it was of sufficient prominence to invite the respectful attention of one of the best goldsmiths who ever made Saxon cloisonné jewellery.

IV. The Archaeology of the Jewellery

by T. D. Kendrick

We have not hitherto considered the East Angles as a showy and conspicuously prosperous folk. In the Settlement Period we find them, as Mr Myres says, ' a federation of several smaller peoples ' living in groups that were geographically isolated and to a certain extent independent of each other. Their material wealth would be judged by such a cemetery as Caistor-by-Norwich, and on the evidence available before the Sutton Hoo discovery we should not have credited them with any unusual skill in the crafts or with the possession

of notable riches. But we now know that in the early seventh century the folk inhabiting the coastal area between the Orwell and the Alde were the subjects of a prince whose grave contained one of the most magnificent and costly furnitures that has ever been found in a Teutonic tomb. Hitherto, when we have wanted to show off the richness of Anglo-Saxon England, we have looked to Kent. Now we have learnt that in one limited area of Suffolk, where lies Rendlesham, a *vicus regius* of the East Anglian ruling dynasty, the maximum brilliance of Kentish archaeology was not only equalled, but surpassed in splendour ; and we realize that the house of Wuffa (the sixth century grandfather of Redwald) thus put to shame the rich royalties of Kent, at the time of, or only shortly after, the reign of Kent's greatest king, Ethelbert.

Jutish Kent had no doubt been rich in gold and jewels for many years before Ethelbert reigned, but for the purpose of these notes we are only concerned with the Kentish background to Sutton Hoo, that is to say the archaeology of the late sixth and early seventh century. We know what some of the Kentish jewellery of this period was like because one of the folk buried at Sarre in Thanet possessed a brooch, now in the British Museum, that was accompanied by a necklace bearing coin-pendants which prove the grave cannot be earlier than Ethelbert's reign. The history of the pattern on this brooch,[1] and the style of its cloisonné, shows, as we might expect, that it comes late in the Kentish series of the big composite brooches; and if we compare this piece with the Sutton Hoo finds, we see that Suffolk had gone ahead in so far as the quality of the goldsmith's work is concerned. It is undoubtedly a parallel piece, because it bears a distinctive ' sloping ' cloisonné pattern that was also used by the Sutton Hoo jeweller. Yet it is completely outclassed in brilliance and sparkle. This seems to warn us that the flowering of the Sutton Hoo school takes place at a time when the former excellence of the Kentish work is weakening.

This, however, is a conclusion that is based on one small group of late Kentish brooches, and it is a simplified statement of the position that needs qualification. As a doorway into eastern Kent, on the Watling Street, stands Faversham, the site of one of the most famous cemeteries in the county. Here, so I now interpret the facts, we seem to find a culture that we shall have to some extent to distinguish from that of the Canterbury end of Kent ; for Faversham provides us with a piece of Sutton Hoo jewellery and, in addition, evidence of the influence of the Sutton Hoo school. In the British Museum there is

[1] ANTIQUITY, 1933, VII, PLATE IV, 4, opp. p. 441.

a very remarkable brooch that we can now safely assign to the same workshop as that which produced the Sutton Hoo jewels. It is a composite brooch with a debased pattern (judged by the obviously earlier forms of the same design), yet it bears the most delicate and astonishing cloisonné in the whole county.[2] This circumstance led me to the mistaken conclusion that it should be grouped with the good early cloisonné that I was trying seven years ago to separate from the inferior later kinds. I did, however, stress its unusual character with an emphasis that I am now thankful to observe, and perhaps my error may now be pardoned on the grounds that I had unsuspectingly stumbled upon Sutton Hoo itself, the then undreamt-of Anglian school of cloisonné. There can be no doubt about this, because the remarkable brooch to which I refer, apart from the striking resemblance between the distinctive general character of its cloisonné and that of Sutton Hoo, actually repeats the astonishing cloisonné interlace so successfully attempted by the Sutton Hoo jeweller; and it does so by means of an identical device, the cloison with the looped or beaded bend (FIG. 3). No other examples of this are known.

This brooch is also important because it provides instances of the 'mushroom' cell that is so frequent at Sutton Hoo, and so rare elsewhere. The interesting point is that though there are a few examples of this type of cell at other places in eastern England besides Sutton Hoo (for instance, the pendant from Wilton, Norfolk, in the British Museum), there are no examples in Kent except at Faversham, where it is to be found on two pendants.[3] This is what I mean by Sutton Hoo influence. Thus we have Faversham very clearly established as either a point of entry into Kent for the Sutton Hoo style, or a Kentish source from which the Sutton Hoo style emerged. It is, of course, hazardous to say much on this subject at the moment; but it does seem that we must at least temporarily entertain the idea that the Sutton Hoo school was one of such dominating brilliance that its glory was, as it were, reflected back into the very country where this kind of jewellery had been first established as an English craft.

One reason for inclining to this view is that the Sutton Hoo style is on the whole markedly un-Kentish in many important respects. For instance, the use of mosaic glass in combination with garnets is

[2] ANTIQUITY VII, PLATE V, opp. p. 448.

[3] The reader will perhaps be indulgent enough to remember that the research on which a statement of this kind should be based is not very easily carried out in war-time.

unknown in Kent[4]; the striking champlevé technique is likewise unknown; the Kentish system of the filigree background is scarcely used at Sutton Hoo, where it is to be found only in a modest form on the clasps; and the Sutton Hoo animal-patterns are to a great extent different from those of Kent. All this suggests a large measure of independence for the Suffolk school, which we may thus regard as having influenced the style and technique of the jewellery worn by the folk of Faversham. Six months ago such a notion would have been dismissed as impossible nonsense; even now it is only with difficulty that we can bring ourselves to entertain the idea; and it is a tribute to the significance of Sutton Hoo that the archaeological ascendancy of Kent should be challenged in this way.

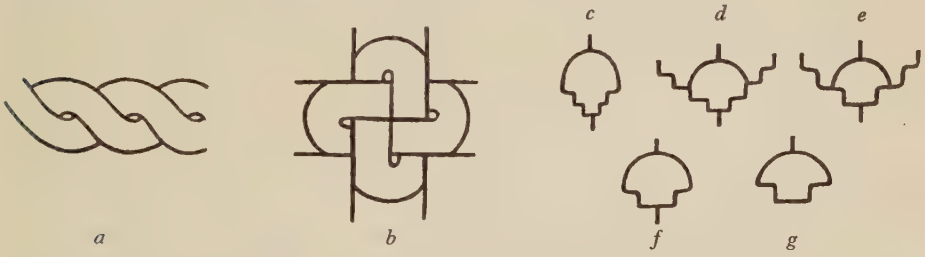


FIG. 3. CLOISONNÉ INTERLACE-PATTERNS FROM SUTTON HOO (*a*), AND FAVERSHAM (*b*); TYPES OF MUSHROOM CELL FROM FOREST GATE (*c*), SUTTON HOO (*d*, *f*), WOODBRIDGE (*e*), AND WILTON (*g*)
By permission of the British Museum

The foreign affinities of the Sutton Hoo work also seem to confirm the individuality of the Suffolk school, and suggest that it was to a large extent free from the domination of the Kentish style. The purse-mount example of the 'Daniel in the Lions' Den' pattern (PLATE XI) is plainly based on the *derived* Frankish versions of the theme, which were not copied in Kent: and it is quite distinct from the sub-Antique version of the same subject that Mr Leeds found at Bifrons.[5] Then there is the 'mushroom' cell. This seems to have originated on the Rhine, as it can there be detected in the process of evolution,[6] and the prolific use of this type of cloison at Sutton Hoo is evidence of a

[4] In the Canterbury Museum there is a small cloisonné pendant set with garnets that has a central ornament that looks at first glance like a tiny piece of mosaic glass. But this centre is in fact a garnet keyed to hold a blue glass covering layer.

[5] E. T. Leeds, *Early Anglo-Saxon Art and Archaeology*. Oxford, 1936. Plate VII.

[6] I suggest the original form is to be seen in the Heidenheim brooch. Veeck, *Die Alamannen in Württemberg*, 1931. Tf. 26, A1.

Continental connexion that is only apparent in Kent in rare instances at Faversham, the cemetery where we have found a veritable work of the Sutton Hoo school. The most remarkable parallel abroad to the Suffolk work with the mushroom cell is the brooch fixed to the Egbert Shrine at Trier.[7] The garnet-inlay on this so exactly resembles the cloisonné of the British Museum pendant from Wilton, Norfolk, that a few years ago I claimed the Wilton piece, which has obvious Sutton Hoo affinities, as Merovingian work, and I believe that some of the Sutton Hoo pieces themselves would be labelled Merovingian, if we did not know that they had in fact been found in England. It may be added on this same subject of the Frankish feeling about the Sutton Hoo work that the jewellery from this new ship-burial in the eyes of some observers reflects the traditions of the Childeric school in a way that Kentish work does not. This is not very easily explained, but it is most clearly evident in details like the purse-rim with its little groups of vertical cloisons and its herring-bone bars.

Another instance of the new orientation of these finds is that the closest parallel to the mounts on the purse-flap is the beautiful Reinstrup brooch in Denmark, which not only bears the typical close-set delicate cloisonné, but also a stylised version of the 'Daniel in the Lions' Den' motive. It seems to be probable that this brooch is a Suffolk export, just like the Kentish-fashion brooch that was made in Suffolk and found in Faversham.

The most striking foreign contribution to Sutton Hoo archaeology is the Scandinavian influence to which I have already referred. There is undoubtedly a Vendel feel about some of these finds, particularly the great shield-boss which might well have come from one of the graves in this famous Swedish cemetery of ship-burials. The sword-hilt is also very like some of those found in the North, and I have no doubt that these resemblances will be found to be of a more arresting kind when we have cleaned the helmet and the gilt fittings with the snouted animal-masks that Mr Phillips thinks are part of the ornaments of the shield. The decoration of the great gold buckle is another example of this northern influence.

Thus, if I may conclude by quoting from the *British Museum Quarterly*,[8] ' the salient fact of the Sutton Hoo discovery is that taken as a whole it is the revelation of a new Pagan Saxon art and archaeology

[7] *Antiquaries Journal*, 1937, XVII, Plate LXXVIII, D.

[8] XIII (1939), no. 4, p. 135

in this country. We may recognize certain period-tendencies in the general style and we may identify certain points of contact with other archaeologies; but the final result must be that Sutton Hoo is unfamiliar and startling. We seem to have here the crystallization of various influences that had not previously been so combined. It is much more than the pale reflection of the Jutish culture in Kent; it is the independent Golden Age of East Anglia, and an archaeological glory illuminating and confirming the historical fact of a dawning political ascendancy'.

The Sutton Hoo Ship-Burial

V. The Silver,* by Ernst Kitzinger

THE silver plate in the Sutton Hoo treasure is not as uniform in technique and style as the gold ornaments. While the latter can be claimed as the work of a special 'Sutton Hoo School' the silver is a haphazard collection of pieces differing in date and origin, and can only be discussed by taking each item separately.

The Large Dish (plates xvi, xvii, xviii)

This is a flat, circular plate, 27 inches in diameter, with a horizontal rim about $1\frac{1}{2}$ inches wide and slightly raised. A thick and heavy ring-foot, about $2\frac{1}{2}$ inches high and 11 inches in diameter, is soldered to its back. When found, it was lying face upwards, with two of its sides badly bent and its ring-foot severely crushed at one point; but it has since been flattened out in the British Museum laboratory. The dish, as distinct from the foot, is made of a single silver sheet, which is broken at several points, and in some parts, especially on the rim, the surface has scaled off owing to corrosion, taking with it small portions of the ornament. Apart from this, however, the plate is in good condition.

Its decoration consists of geometrical ornament engraved on the surface with thin and delicate lines. There is a roundel in the centre, about 4 inches in diameter, with a composite and somewhat involved pattern. Within an eight-pointed star, formed by two squares superimposed obliquely upon each other, is inscribed a circle, which has within it again a similar star of correspondingly smaller size; inside this, at the very centre of the pattern, is a still smaller circle forming a minute medallion which contains the figure of a bird spreading its wings. The outer star and the circle enclosed in it are drawn with double lines suggesting plastic rather than geometrical shape, and are engraved with rows of running spirals, while the points of this star are filled with a kind of palmette motive, and their intervals with fleurs-de-lys which have a small spiral attached on either side. Similar motives

* I wish to express my warmest thanks to Mr C. F. C. Hawkes, who was kind enough to read this paper in manuscript and made many valuable corrections and suggestions.

are interspersed in the empty spaces between the outer and the inner star.

At a distance of about $2\frac{1}{4}$ inches from the roundel runs a circular border, about $1\frac{1}{2}$ inches wide, subdivided by medallions into four sections. The position of these medallions is in no way related to that of the stars in the central roundel, nor are they all at equal distances from each other. The border is thus subdivided into four not quite equal sections, and each is filled with a different design. One shows a simple criss-cross pattern; the next one a frieze of interlaced ovals, each containing a fleur-de-lys inside a circle; the third one a row of confronted spirals with little leaves between them, and the fourth a meander. All these friezes are lined on either side by running spirals. The four medallions contain alternately a female figure seated on a throne with a spear in one hand and an orb in the other—a type commonly used in Roman art to personify cities—and a profile figure, running, with fluttering draperies and an uncertain object in her hands.

A similar decoration covers the rim of the dish. There are four medallions placed radially opposite those of the inner ring, all showing running figures with fluttering draperies. The criss-cross pattern of the inner ring is matched by a similar motive in the corresponding section of the rim, while the next compartment contains a frieze of intersecting circles filled with quatrefoils, and the third one, like the corresponding section of the inner ring, a frieze of confronted spirals, which, however, this time lie in double rows across the width of the frieze. The fourth section shows a repeat pattern of small quatrefoils.

On the back of the plate, inside the foot-ring, there are four control-stamps, for which however only two different stamps (PLATE X D, E) have been used. One pair is hexagonal in shape and contains a monogram based on the letter N, with an A, an Γ and a T inscribed and an O and a V perched on top. The monogram is flanked by two groups of two letters forming the word ΘΩ/MA, while above there is a small equal-armed cross, and below a star. The other two impressions are oblong with a semi-circular top. Each contains a badly defaced but apparently beardless bust with a nimbus, flanked by the inscription DN ANA. . . ./. . . . PPA. Beneath the bust is an M-shaped monogram with other letters inscribed, amongst them an A and an N.

I will discuss these stamps first since they afford evidence of the date, and, within certain limits, also of the provenance of our piece. Exactly similar stamps are not on record, but the types are those commonly found on Byzantine silver plate of the fifth, sixth and seventh

centuries. The NAΓTOV monogram occurs on many of these pieces, and nearly always in a hexagonal stamp.[1] It is also well known from coins, on which it stands for the name of the Emperor Anastasius I.[2] Hitherto, however, no example of this monogram on a silver-stamp has been deciphered conclusively, since the name Justinianus offers as likely a reading of the letters as the name Anastasius. The Sutton Hoo monogram is the first of its kind that can be read, thanks to its association with the other stamp. For this contains the name Anastasius in a form which, both on coins[3] and on silver stamps,[4] is customary and recognized. The plate, therefore, was stamped, and probably also made, in the Byzantine Empire during the reign of Anastasius I (A.D. 491–518).

The name ΘѠMA on the hexagonal stamp and the monogram on the oblong stamp defy all attempts at identification. But it must be remembered that the great majority of stamps on Byzantine silver plate bear names and monograms which cannot be related to any known person. We are indeed singularly fortunate here in being able to identify at least the main feature on each of the stamps, and in finding that they both refer to the same historical personage.

Plates of this size and shape are not exactly common in Early Byzantine silver work. There are but few vessels of the period with a diameter equal to, or larger than, that of this plate, the shield of Theodosius in Madrid with its 29-inch diameter being the most conspicuous amongst them. Moreover, the average Early Byzantine plate is a flat or slightly concave disc framed by some kind of plastic moulding, a form well exemplified, for instance, by the shield of Theodosius, the plates with classical figure subjects from south Russia, and those in the two Cyprus treasures. The flat raised rim of the plate occurs, however, in identical form, on two fourth-century plates in the treasures from Concesti[5] and Petrossa.[6] Fragments from Traprain[7] and

[1] L. Matzulewitsch, *Byzantinische Antike*, 1929, pp. 30, 75, 111, 113, 115; M. Rosenberg, *Der Goldschmiede Merkzeichen*, 3rd ed. 1928, IV, 700, 704, 718.

[2] W. Wroth, *Catalogue of the Imperial Byzantine Coins in the British Museum*, 1908, I, p. 7.

[3] Wroth, loc. cit. pp. 1 ff.

[4] Matzulewitsch, loc. cit. pp. 75, 102.

[5] Matzulewitsch, loc. cit. pl. 47.

[6] A. Odobesco, *Le Trésor de Petrossa*, 1889–1900, pl. opposite p. 88.

[7] A. O. Curle, *The Treasure of Traprain*, 1923, pl. 24.

Hammersdorf[8] probably also belonged to plates of this type. There are other related examples, but with a more strongly emphasized break between bottom and rim.[9]

The form is much more common in pre-Constantinian times; it is in fact one of the most frequent types of plate in the silver treasures of the classical Roman period.[10] The pieces from Hassleben and Wettingen are outstanding examples of third-century date, while the specimens in the Hildesheim Treasure take it back as far as the first century. The plate, therefore, is based on very old traditions, and the only distinctive feature of its shape is its quite unusually high and heavy foot-ring.

As the examples of classical times show, the arrangement of the decoration on the Sutton Hoo piece is traditional for this type of plate. On most pieces, except the very small ones, we find a roundel, or *emblema*, in the centre and an ornamental border on the rim. The only part of the decoration of the Sutton Hoo plate that is not found anywhere else is the second border inserted between the roundel and the outer rim. We shall have more to say about this later on.

It is, however, only in its general scheme that the decoration of the plate invites comparison with classical pieces. Motives and style could hardly be more different. The classical examples, such as the plates from Hassleben and Karnak, have either a figure scene or a floral rosette in the central roundel, and their border ornament consists either of an acanthus scroll or else of bucolic animal-scenes interrupted at regular intervals by masks and altars. By replacing these rich naturalistic designs with an array of small scale geometrical ornaments, and by employing, moreover, an engraver's technique instead of plastic modelling the artist has produced an entirely different effect, which no longer depends on the beauty of some individual object, such as a wreath, an animal, or a human figure, but on the restless glitter of innumerable minute incisions. The figured relief has been replaced by a carpet, the plastic design by a kind of filigree pattern.

[8] Matzulewitsch, loc. cit. p. 119, fig. 31.

[9] Plate of Bishop Paternus (Matzulewitsch, loc. cit. pl. 26); plate from Riha (Rosenberg, loc. cit. pp. 686 f); from Stuma (*Revue Archéologique*, 1911, I, pl. 8); from Lampsacus (H. Peirce and R. Tyler, *L'Art Byzantin*, 1932, I, pl. 175); in Budapest (ibid. pl. 61 B).

[10] W. Schulz and R. Zahn, 'Das Fürstengrab von Hassleben'. *Römisch-Germanische Forschungen*, 1933, VII, p. 63. Fr. Drexel, in *Bonner Jahrbücher* 1909, CXVIII, 182 ff, 189 ff, 199 ('Form 1').

It is well known how conspicuous a part this kind of ornament, which amounts to a complete negation of all the principles of classical art, plays in Late Antique times. But in order to fix the historical position of the Sutton Hoo plate we have to trace the influence of this ornamental style on the evolution of metal-work. Incised ornament (with or without niello inlay) had existed throughout the Roman period side by side with embossed work, but it was only during the fourth century that it came into prominence. The late fourth century treasures from Traprain, Coleraine, and the Esquiline illustrate this change of fashion. They also show that by that time naturalistic ornament had frequently been replaced by geometrical designs, a development which seems to have taken place simultaneously in many parts of the Roman world. With particular reference to our type of plate we may quote the examples from Petrossa and Budapest (see above, notes 6 and 9), both of which have ornaments made up entirely of abstract motives : a fourth-century plate from Augst may also be mentioned because it is decorated with a composite pattern of circles and eight-pointed stars, very much like that in the centre of our plate.[11]

Within this large class of Late Roman silver work with incised conventional design there is one special group which has a particular bearing on the Sutton Hoo plate. This consists of pieces with ornament so minute in scale and so tightly crowded together on a narrow space that no empty ground remains, and the individual patterns are no longer recognizable ; pieces, in fact, whose decoration, like that of the Anastasius plate, recalls filigree work or very fine lace.

Such ornaments occur several times in the treasure of Traprain. Two fragments of a plate have already been quoted, because the object to which they belonged presumably resembled the Sutton Hoo piece in shape (see above, p. 42), and these fragments also offer the closest comparison for its ornament. There is, moreover, a flagon[12] with ornamental friezes very similar to those in Sutton Hoo and actually showing some of its patterns: for instance, a frieze of interlaced ovals, another of intersecting circles, and a border of running spirals. Two other silver objects with decoration in this style are the plates from Concesti and Lampsacus (see notes 5 and 9) ; the former has a central roundel with a design based on an eight-pointed star, and, as at Sutton Hoo, this motive is enriched by spirals and small foliate patterns. The

[11] W. Schulz and R. Zahn, loc. cit. pl. 34.

[12] Curle, loc. cit. p. 23.

latter has on the rim a nielloed frieze in ' filigree style ', partly composed of the same patterns as ours.

The four pieces just mentioned share yet another peculiarity with the Sutton Hoo plate, namely the medallions subdividing the ornamental borders. Even in classical times the rim-ornaments of silver vessels had often been composed in sections. Acanthus scrolls grow out of either two or four stems dividing the friezes in halves or quarters. The bucolic animal-friezes are always accentuated at regular intervals by masks in profile. But it is only in the fourth century that the dividing motive comes to consist of separate medallions. These sometimes enclose a human head and have been thought to imitate coins.[13] But it has also been pointed out that the heads in the medallions merely take the place of the masks on the animal-friezes.[14] Moreover many of the medallions, for instance those on the Traprain flagon, show idyllic figures, such as *putti*, which do not occur on coins, and the same sort of figure appears on some of the medallions of this new plate. On the other hand the Sutton Hoo plate also has two medallions with figures personifying cities, and these look indeed like the reverse of a Late Roman or Early Byzantine coin. But the most remarkable feature of the friezes of the ' filigree group ' is, that except on the Concesti plate, where the intervals between the medallions are filled with animal scenes, they all show a change of pattern in every division. This fact, more than any other, brings home the fundamentally unclassical character of this class of silver vessels. When a classical artist divides the border of a plate into sections he strictly observes the rules of symmetry, and creates a perfectly balanced composition which is intended to be perceived as a whole. Here however a general view of the border leaves us with the disquieting impression of asymmetry and chaos, and instead of looking at the whole circle at once we prefer to ' read ' successively one pattern after the other and are thus chased round the border in an endless flight. The circle no longer embodies calm, peace, and perfection, but perpetual restlessness.

There can be no doubt that the plate is closely affiliated to this particular group of Late Antique silver vessels, in which we find so many patently unclassical elements. It may be asked whether its style is due to the general anticlassical tendencies of the Late Roman period, or whether it is a peculiarly Eastern phenomenon.

[13] R. Zahn, in *Amtliche Berichte aus den Königlichen Kunstsammlungen*, 1916–1917, XXXVIII, col. 29.

[14] Fr. Drexel, in *Bonner Jahrbücher*, 1909, CXVIII, 183.

The group of metal-work with ' filigree ' decoration is too small for final decision, but there can be no doubt that there are reasons for regarding it as purely Eastern. One plate comes from Lampsacus, that is to say from the immediate neighbourhood of Constantinople, another from south Russia, the principal export country for the Byzantine metal industry. The new plate has Byzantine stamps, and thus not only forces us to disregard the fact that it comes from a Western site, but also invalidates what significance the pieces from Traprain might otherwise have in this connexion as Western finds. If the famous little escutcheon in Athens[15] really were of second-century date it might be argued to represent an oriental forerunner of this Late Antique group, and would thus give added force to the oriental theory. But it is much more probably Late Antique itself and it is just another member of the same family.[16]

The problem is complicated by the existence of a group of gold ornaments in openwork technique with very close relations to our type of silver-work. Openwork technique came into vogue during the second century and reaches its most elaborate stage during the fourth and fifth.[17] At that time we find patterns based on some geometrical figure, which is however rendered almost unrecognizable through a mass of small scroll and spiral motives filling all the available space between and around its outlines, so that we perceive nothing but a rich and highly complicated pattern of small and delicate gold fillets against a dark background. These works are parallel, in a different technique, to our silver vessels. There is a pendant in Berlin[18] with a medallion of the Emperor Honorius enclosed in an openwork frame which, like the roundel in the centre of the Sutton Hoo plate, is decorated with an eight-pointed star interspersed with scroll motives which transform the plain geometrical figure into a rich and complicated all-over pattern. Even the star itself is covered with an openwork design so that there is no coherent metal surface left at all. On the plate the same effect is achieved by covering the star with an ornament of running spirals. Related to the Honorius pendant is a group of bracelets also with highly intricate openwork patterns, which are arranged in sections each with a different design and separated from the

[15] O. M. Dalton, *East Christian Art*, 1925, p. 386.

[16] Cf. Fr. Drexel, in *Germania*, 1925, IX, 126 n. 17.

[17] A. Riegl, *Spätrömische Kunstindustrie*, 1901, I, 140 ff. R. Zahn, loc. cit. (note 13) col. 17 ff.

[18] R. Zahn, loc. cit. col. 29.

adjoining one through a metal disc. The obvious parallel these bracelets afford to the arrangement of the border ornaments on the plates of our type has been pointed out by Zahn.

Now it is important to note that this group of gold ornaments, so closely related to the Sutton Hoo silver-work, has been thought to be perhaps of Gaulish origin.[19] While it is impossible to settle this problem within our present context, it must at least be noted that the 'filigree style' in metal-work may not have been confined exclusively to the eastern part of the Roman Empire. Although perhaps first introduced in Byzantium, it may have emerged in the West almost simultaneously. In the fourth century the Roman world was still sufficiently uniform to justify us in speaking of an international style. And if we leave our special group and consider quite generally metal-work with incised conventional patterns, we find that the style was certainly taken up by local craftsmen in the West at an early date. It is true that some authorities regard all the silver vessels with this type of ornament, for instance the specimens in the Traprain and Esquiline treasures, as oriental. But the fourth-century British pewter vessels are unassailable proof of the employment of this type of ornament by local craftsmen in the extreme West.[20]

It must in any case be agreed that the frequent occurrence of geometrical designs on metal-work represents only a special case within a tendency which became noticeable in the decorative art of all Roman provinces during the fourth century; a tendency towards small-scale conventional ornament delicately drawn and often arranged as repeat patterns in carpet style. The Coptic tapestries with geometrical designs in purple and white, which have recently been shown to belong to that date,[21] and some of which, incidentally, show patterns very much like those on the British pewter vessels, are evidence of this general tendency in Late Roman art, no less than the mosaics in the vaults of Sta. Costanza in Rome with their panels of small-scale repeat patterns.[22]

This is the wider background to the style of the plate. It is rooted in a development in Late Antique art which took place during the fourth century and reaches its climax about A.D. 400. The Traprain

[19] R. Zahn, loc. cit. col. 35 ff.

[20] Cf. *Archaeologia*, LVI, 9.

[21] L. M. Wilson, *Ancient Textiles from Egypt in the University of Michigan Collection*, University of Michigan Studies, Humanistic Series, 1933, XXXI, nos. 73, 76, 79, 105, 109.

[22] M. van Berchem and E. Clouzot, *Mosaiques Chrétiennes du IVe au Xe siècle*, 1924, pp. 2 ff.

treasure is dated through its coins to the early fifth century. The plate from Concesti is thought to belong to the period about A.D. 400, a point which is of particular importance since this is the only piece which combines style and arrangement of the Sutton Hoo ornament with a wholly identical type of plate. The type was very common in the earlier centuries, but we have not been able to produce an exact parallel later than A.D. 400. The Lampsacus plate, important for us on account of its border ornament, has in its centre a piece of figure relief which has all its stylistic parallels in the period of Theodosius and Honorius. The Honorius pendant dates from the late fourth century and so do the openwork bracelets. So much for the immediate parallels, but the same applies to all the other pieces adduced for comparison.

After that period the style went out of fashion. In A.D. 400 silver plates with large-scale embossed reliefs exist side by side with those with minute conventional ornament faintly incised. By 500 the former completely dominate the scene,[23] and even where there is no figure-work the surface is covered by but few motives boldly designed (cf. *e.g.* the plate of Paternus). One of the plates from Cyprus[24] has an ornamental frieze of our type, but merely as a border for a monumental human figure. The gold ornaments of the sixth century, although still frequently executed in openwork technique, show a single conventional pattern and no longer that interplay of different motives which constitutes the peculiarity of works like the Honorius pendant.

How does this agree with the stamps on the Sutton Hoo plate, which, as we saw, date from the time of Anastasius ? There is, of course, the possibility that the plate was made about 400 and not stamped until a hundred years later. Many Byzantine silver vessels were at one time thought to be much older than their control-marks, and although most of them have since been shown to be contemporary, the stamps having been applied when the vessels were not yet quite finished, it would be difficult to prove that this was necessarily the case here. For the argument is conclusive only where the stamps can be shown to have been damaged in the process of embossing the relief decoration. In a case like ours, where there is no embossed ornament, this technical criterion cannot be used.

[23] Cf. the silver vessels which by evidence of their stamps date from the time of Anastasius, or, at latest, Justinian : see above, notes 1 and 4.

[24] O. M. Dalton, *Catalogue of Early Christian Antiquities in the British Museum*, 1901, no. 398.

The plate can, however, quite easily be genuinely dated to the time of Anastasius by its stamps, provided we assume that it was made by a very conservative artist. The general character of its ornament makes it, in fact, very likely that it was copied rather mechanically and hastily from a time-honoured pattern-book without due consideration for the context for which the patterns were originally intended. The plate is really much too large for such minute and delicate patterns. In the middle of a vast, empty space we find a mass of patterns of almost microscopic size all crowded together in a roundel only 4 inches in diameter. The artist himself was aware of the absurdity of this arrangement, but too much hampered by tradition and convention to invent a bold large-scale design in keeping with the dimensions of the plate. He could see no better way of solving his difficulty than to insert halfway between the centre and the border, a repetition of the border ornament. We said before that no other example is known of such a frieze, whose place on a plate is clearly on the rim, being duplicated, and the whole arrangement looks very much like a makeshift devised by a silversmith who only had a limited number of set patterns at his disposal.

He drew his designs as best he could without troubling to co-ordinate the ornaments in the centre with those in the two outer rings. The eight-pointed star and the bird in the roundel lie unhappily at an oblique angle to the radii formed by the medallions of the border friezes. These radii themselves do not form right angles with each other. The execution of details also shows signs of untidiness. This is not the work of a pioneer, but of some back-street artisan, clinging to old formulae, very possibly at a time when better artists had already abandoned them.

The plate from Cyprus mentioned above shows that our type of decoration was still known to metal-workers even at a time considerably later than that of Anastasius. It is therefore perfectly possible that an artist of about A.D. 500, who made no particular claim to originality, used it as his only design. What may be questioned, however, is whether such an old-fashioned piece can have been made in Constantinople itself. Many authorities are naturally inclined to think that Byzantine silver vessels with imperial control-stamps are most likely to come from the capital. Indeed, on the correctness of this assumption all the theories regarding the distribution of the early Byzantine schools of metal-work depend; but it must be admitted that so far it is nothing more than a hypothesis, and one, moreover, weakened rather than strengthened

by a piece like this at Sutton Hoo which combines the imperial control-stamps with what must be described as a back-water style. We must reckon with the possibility that other towns in the eastern Roman world also exercised the imperial control, and all that can be safely said is that the plate comes from within the limits of the Byzantine Empire.

If we draw a distribution-map of silver plate with Byzantine stamps we find that the great majority of them have come to light round the eastern Mediterranean—in Syria, Cyprus, and Asia Minor—or else in south Russia and on the lower Danube, countries to which the Byzantine export trade chiefly flowed. With the exception of a reliquary in the treasure of Sancta Sanctorum in Rome[25] no stamped pieces had previously been found in the West, the two plates from Valdonne[26] being probably both local imitations. The Sutton Hoo plate is in any case unique as a demonstrably Byzantine work which found its way—through channels at which we can only guess—to the extreme northwest of Europe.

The Bowl with the Classical Head (plates v, xiv)

We next turn to a much smaller vessel, which was found buried underneath the Anastasius dish, a bowl, 15 inches in diameter, with fluted sides, a narrow, horizontal rim and a flat bottom which is embossed in low relief with a female profile head surrounded by a conventional foliate frieze.

Date and provenance of this piece are difficult to determine. Its decoration suggests a relationship with Mediterranean work, but it is clearly not of the same origin as the large dish, for it is far more severe in style and lacks the overflow of ornamental motives characteristic of that piece. But it has no obvious connexion with any known type of Late Antique metal-work.

It is difficult even to find a parallel for its shape. Fluted bowls are common enough in Late Antique times, for instance, among the third-century bronze vessels found in great quantities in lower Germany and Scandinavia, which are thought to be ultimately derived from glass and metal vessels such as occur in Pompeii.[27] But none of these Roman pieces has exactly the same shape as the bowl at Sutton Hoo.

[25] Rosenberg, loc. cit. p. 706 f.

[26] Rosenberg, loc. cit. pp. 736 ff. ; R. Jaeger, in *Jahrbuch des Deutschen Archaeologischen Instituts*, 1928, Anzeiger, xliii, col. 561 f.

[27] G. Ekholm, in *Acta Archaeologica*, 1935, vi, 71 ff. O. Brogan, in *Journal of Roman Studies*, 1936, xxvi, 210.

Perhaps its comparatively closest analogy is provided by a bowl in the Traprain treasure,[28] which has all the elements of this piece, although it is proportioned in a different way and its flutings are curved and not straight. The Sutton Hoo specimen might be a simplified version of this type of bowl. After the end of the fourth century fluted vessels became less common, although several pieces in the treasure of Nagy-Szent-Miklas show that, in the barbaric sphere at least, the type survived into much later centuries.[29]

Unfortunately the decoration does not lead us much further. To take the foliate ornament first, it presents itself as a version of the Lesbian *kymation* of classical times enriched by small three-petalled flowers in the trefoil-shaped intervals between the leaves. This is a form known from the architecture of the early imperial period[30], a date with which the crude and decadent workmanship of this piece certainly does not agree. In its further evolution the Lesbian *kymation* was transformed out of recognition, as may be seen from the type series published by Weigand.[31] In the third- and fourth-century examples the character of a foliate frieze is completely lost. Since, however, this is the earliest possible date for the hard, linear style of the bowl, this ornament must be explained as a studied attempt to return to the true classical manner at a time when it had already died out. The figure-head in the centre of the bowl tells the same story. Only an artist working in a retrospective classicizing manner could have combined genuine classical features such as the straight profile, the head-dress, and the sharp break at the neck, with such a conventional execution of detail and a total lack of expression.

Such classicizing tendencies developed in Rome towards the end of the fourth century, at the time of the last Pagan reaction against the victorious Church, as may be seen on several consular diptychs of that period; and there are also a number of Christian objects influenced by this ' Renaissance ', *e.g.* Projecta's Casket in the British Museum and the famous ivory panel from the Trivulzio Collection with the Women at the Sepulchre.[32] The latter has a Lesbian *kymation* of classical type but not identical with ours. If the bowl is a Western work it would be most likely to belong to this period. In Byzantium, on the other

[28] Curle, loc. cit. pl. 35.

[29] Riegl, loc. cit. 1923, II, pls. 40, 41, 43.

[30] C. Weickert, *Das lesbische Kymation*, 1913, pl. X, a, b.

[31] *Jahrbuch für Kunstwissenschaft*, 1924, II, 166.

[32] A. Venturi, *Storia dell'Arte Italiana*, 1901, I, 79.

hand, the classical tradition never died out, as is shown by the numerous silver vessels of the sixth and seventh centuries with classical figure scenes and ornaments.[33] A silver amphora from Poltawa[34] has a *kymation* not unlike the Sutton Hoo example. But the classicism of Byzantine works, due to an unbroken Hellenic tradition, is less studied and academic, and the head on our bowl has little in common with the delicately modelled figures on these Eastern reliefs. They are often less elaborate and exact in detail, but they are made with a much greater knowledge of human anatomy and produce the illusion of a living body and its richly undulated surface. The dry and lifeless manner of this head is more in keeping with those earlier Roman works, and one of the priestesses on the diptych of the Symmachi and Nicomachi[35] may be quoted as showing a head related in type, as well as in academic coolness, although the workmanship is much better.

But neither the Roman ' Renaissance ' of A.D. 400, nor the Byzantine classicism of the sixth and seventh centuries, provides any really good parallels for this bowl, and the questions of its date and provenance remain undecided. Perhaps its singularly sterile and crude character could be more easily explained by assuming that the bowl is of provincial origin and not directly connected with the stylistic movements in any of the big centres.

The Set of Small Bowls (plates xiii, xix)

The third important item amongst the objects of silver is a set of nine bowls, all of identical size and type. They were found as a nest standing one on top of the other, and one of them had been entirely reduced to silver chloride, while of another one only a few badly corroded fragments have survived. But the others are in good condition. They are shallow circular bowls, about 9 inches in diameter, and without foot or rim. The decoration in each case consists of an equal-armed cross inscribed into the inside of the bowl, its arms formed by rows of a chased star-pattern, its centre by a circular ornament which varies in every second piece. Two have a six-pointed star, two others a gadrooned rosette surrounded by a *kymation*, a third pair a wheel-rosette surrounded by what is perhaps a debased version of the classical

[33] Matzulewitsch, loc. cit. *passim.*

[34] Ibid. pl. 28.

[35] *Victoria and Albert Museum, Catalogue of Carvings in Ivory*, part I, 1927, frontispiece.

egg-and-dart motive, while the seventh piece shows a similar rosette but unframed.

Whether this type of bowl goes back to classical origins is difficult to say. A vessel of similar shape, but with a foot-ring, occurs in the treasure of Berthouville, a Gaulish find dating from the third century,[36] and in any case it was known in the eastern Mediterranean region during the Early Byzantine period, for there are two bowls of the same shape in the treasure from Lampsacus.[37] These resemble the Sutton Hoo bowls even in having a decoration in the shape of an equal-armed cross inside the bowl, which in this case however consists merely of gilt stripes with incised outlines. One of the bowls from Lampsacus has Byzantine control-stamps.

The Sutton Hoo vessels, however, are not altogether in the ordinary line of Byzantine silver. The star-pattern is not known there, nor is the wheel-rosette a common Early Byzantine motive. The bowls, in fact, occupy a curious position halfway between the Byzantine sphere and another which may be described as either oriental or barbaric; or rather, we may notice within our set a development from one style to the other. The two bowls with six-pointed stars in the centre are reminiscent of some of the Late Roman and Early Byzantine plates with incised geometrical ornament which we quoted in connexion with the Anastasius dish. For the decoration in these two cases is drawn with very delicate and slightly intermittent lines, and is hardly embossed at all. The star-pattern, moreover, is not quite so developed, and more like the simple quatrefoil pattern so frequent on the silver vessels from Traprain, from the Esquiline, etc. (cf. FIG. 4 a, b). The six-pointed star, too, is a common Late Antique motive.[38] All the other bowls show a more distinct, although still very flat relief and more clearly defined outlines. There are two more pieces with a central design of an ordinary Late Antique type, namely a gadrooned rosette surrounded by a foliate frieze. But the remaining three have the wheel-rosette, a very old oriental design which although frequently employed in classical art is hardly ever found there in the same shape as here, and two have in addition a pattern which may be a very debased version of the egg-and-dart motive. In this last-mentioned pair we notice, moreover, a tendency to let the ornament sprawl over the surface of the plate and the classical elegance and restraint of the first two pairs have disappeared.

[36] E. Babelon, *Le trésor d'Argenterie de Berthouville*, 1916, pl. 28.

[37] O. M. Dalton, loc. cit. (note 24), nos. 378, 379.

[38] R. Zahn, loc. cit. (note 13), col. 32 f.

But the most significant change is that which takes place in the pattern on the cross-arms. In the first two pieces (FIG. 4 b) small leaves had been inserted in the angles between the quatrefoils, which slightly obscured the geometrical character of the Late Roman design on which the pattern is based. In all the other bowls (FIG. 4 c) these small leaves are linked up with each other so as to form small four-petalled flowers in the lozenge-shaped intervals on either side of each quatrefoil, and halves of such flowers are inserted in the triangles above and below. The quatrefoils themselves have received a surface-modelling which seems to characterize them as leaves rather than purely abstract designs. The effect, in fact, is that of a row of leaves and blossoms conventionally arranged.

When and where did the artists live who based their work on Late Antique and Early Byzantine models only to change their entire character as they went on? The wheel-rosette might suggest an oriental border country, such as Coptic Egypt, where related examples are known,[39] but examples very similar to those at Sutton Hoo also occur on nielloed silver plaques from Hungary.[40] And the 'floral' star-pattern does not seem to occur in the Orient at all. It is true that the step from the simple quatrefoil pattern, so common in Late Roman art, to this more elaborate form is not very great and may have been taken independently in any region in which Roman models were available. There are, for instance, little flowers in the intervals of the stars on one fragment at Traprain,[41] and the same occurs on a Roman bronze plaque from Hungary.[42] But at the same time it is a curious fact that the closest parallel to these friezes is provided by some of the gold vessels in the treasure from Nagy-Szent-Miklas.[43] The possibility of a common origin cannot be excluded.

In a recent study on the treasure of Nagy-Szent-Miklas[44] an analysis of the very pattern we are interested in has been used to show that all the vessels are not of one and the same style, but reflect a progressive development towards an ever more unrestrained barbaric manner, a

[39] Cf. Book-covers in New York. (*A check-list of Coptic Manuscripts in the Pierpont Morgan Library*, 1919, pl. II) and Vienna (Th. Gottlieb, *Bucheinbände*, 1910, pl. I). For the date of these covers cf. *The Library*, 1933, XIII, 7; 1938, XIX, 203.

[40] H. Peirce and R. Tyler, *L'Art Byzantin*, 1932, I, pl. 64.

[41] Curle, loc. cit. p. 83, fig. 63.

[42] Riegl, loc. cit. I, pl. 20, 4.

[43] Riegl, loc. cit. II, pls. 31 f., 36 ff.

[44] H. Schüller, in *Archaeologiai Ertesitö*, 1937, pp. 116 ff., 217 ff.

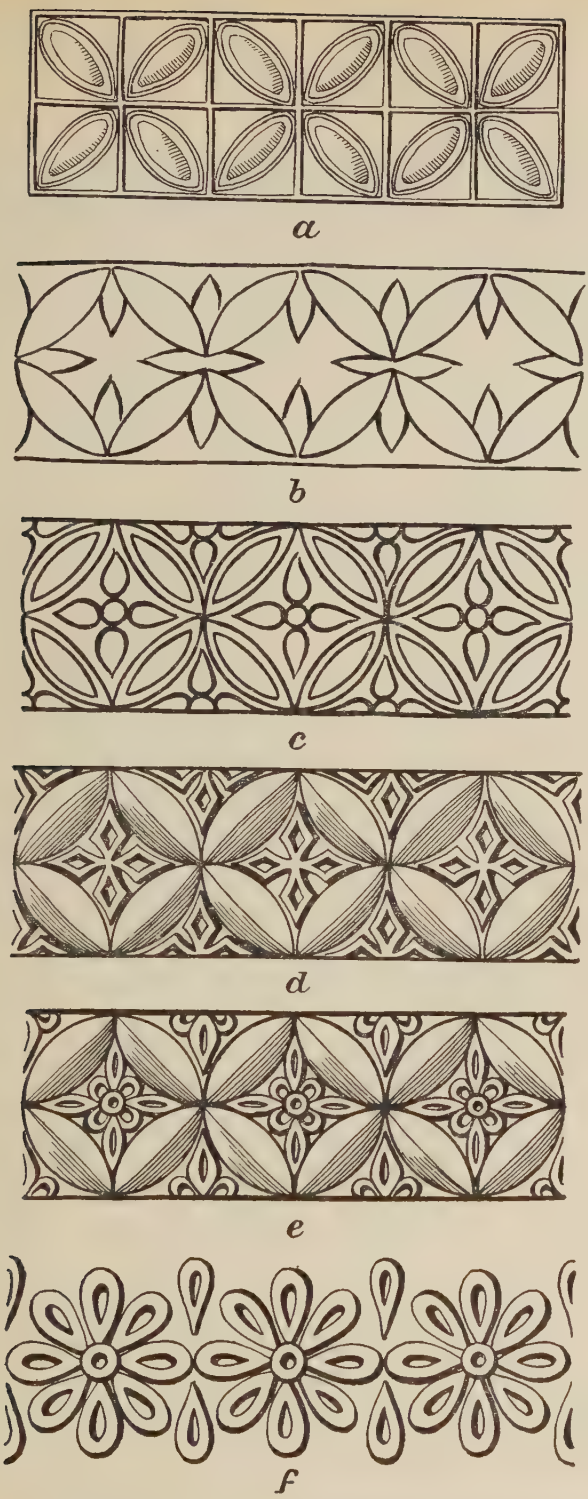


FIG. 4. QUATREFOIL AND STAR PATTERNS: (*a*) TRAPRAIN; (*b*, *c*) SUTTON HOO BOWLS; (*d*, *e*, *f*) NAGY-SZENT-MIKLAS (*see* pp. 53–6)

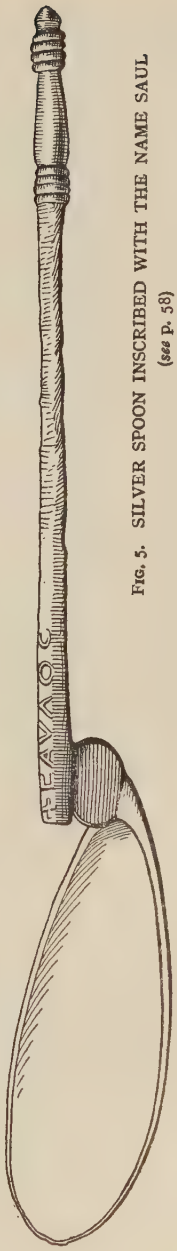


FIG. 5. SILVER SPOON INSCRIBED WITH THE NAME SAUL (*see* p. 58)

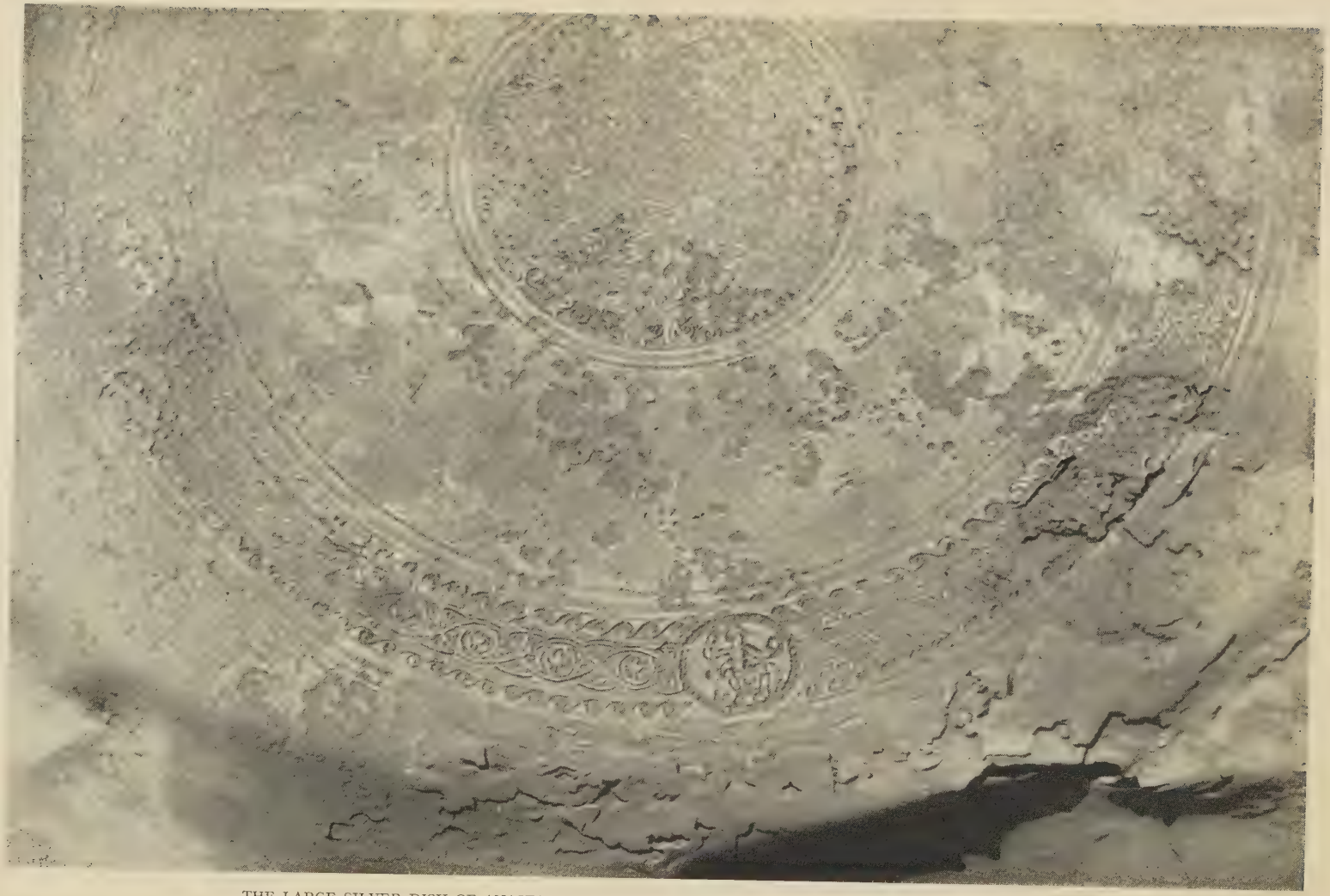
development which, in the author's opinion, may have taken some considerable time. The development which we observed within the set of plates from Sutton Hoo may be a warning against interpreting such stylistic changes within an outwardly uniform set of vessels in terms of chronological differences; in fact, the Sutton Hoo bowls, which are certainly all of one period, show that the style of a craftsman, or a group of craftsmen, may undergo certain transformations as the work goes on. But this does not alter the fact that the goldsmiths who made the vessels of the Hungarian treasure displayed an increasing tendency towards turning the star-pattern into a floral ribbon, and this is the same tendency as that observed in Sutton Hoo, or rather, the artists of Nagy-Szent-Miklas begin where those of Sutton Hoo leave off (FIG. 4 d, e, f). We can arrange an evolutionary series starting with the classical quatrefoil pattern. Taking the first pair of our bowls as the first step towards floral interpretation, and the other pieces from the set as the second, we find that this is exactly the stage at which the evolution in the Hungarian treasure sets in, and it is then followed up with other versions of the same pattern which are even more outspokenly floral. This uniformity of purpose we may, with all due precaution, take as an argument in favour of a historical connexion between Sutton Hoo and Nagy-Szent-Miklas. We may add that the star-pattern of the Nagy-Szent-Miklas vessels has often been said to be derived from the Late Roman quatrefoil, but a link between the two has never been supplied.

The vessel in the Hungarian find which provides the closest parallel to the ornament on the bowls is a jug of Sassanian type[45], and it would therefore not be unreasonable to assume that it was in Sassanian art that the change from the quatrefoil-pattern to the star-pattern originally took place. The Sutton Hoo bowls on this reasoning might be Sassanian. But it so happens that the star-pattern is the only detail which the Hungarian vessel does not share with its Persian prototypes, nor does it seem to occur anywhere else in Sassanian art. We are therefore forced to conclude that this detail is peculiar not to the prototype used by the goldsmiths of Nagy-Szent-Miklas but to these artists themselves, and represents their own artistic tradition. Thus granted that there is any connexion between Nagy-Szent-Miklas and these bowls, the latter would have been made by the same people, and would represent that tradition of ornamental design which enabled them to add an original contribution to their Sassanian models. It

[45] Riegl, loc. cit. II, pl. 32.



BOTTOM OF THE LARGE SILVER DISH (PLATE XVI) IMMEDIATELY AFTER REMOVAL, WITH SILVER CUP IMPALED ON FOOT-RING (*see* p. 40)
Ph. O. G. S. Crawford



THE LARGE SILVER DISH OF ANASTASIUS I SHOWING DETAILS OF THE ORNAMENT (*see* pp. 2, 18, 40, 69)
ON THE BACK ARE FOUR CONTROL-STAMPS (*see* p. 28 and PLATE X, D and E)

Ph. O. G. S. Crawford



TWO OF THE SMALL SILVER BOWLS WITH GEOMETRIC DECORATION (*see* pp. 3, 16, 52 and PLATE XIII)

By permission of the British Museum



THE GOLD CLASPS (*see* pp. 16, 28–9). PART OF THE SWORD IS ON THE LEFT
Ph. O. G. S. Crawford

has always been recognized that the artists of the Hungarian treasure were under strong Late Antique and Byzantine influence,[46] and the shapes of their bowls are due particularly to Byzantine models.[47] Sutton Hoo would show us the barbaric craftsmen in the process of their first emancipation from Late Antique models, while Nagy-Szant-Miklas would illustrate the more developed and sophisticated stage they thus achieved.

It must be admitted that we have ventured far into the realm of speculation, and it is perhaps advisable not to add to the vigour of the opposition which such dangerous thoughts are bound to arouse by stirring up the hornets' nest of problems which conceals the identity of the people who made the treasure of Nagy-Szent-Miklas. But most authorities are now inclined to credit the Avars with this work, while the dates given vary between the late sixth, the seventh, and the eighth centuries.[48]

Our group of vessels, if not due to the same people, must at any rate have been made by barbaric craftsmen who, like those of Nagy-Szent-Miklas, shaped their vessels after well-known Mediterranean or Eastern prototypes, but with regard to ornamental details allowed themselves to be carried away by their own taste and imagination. Apart from their connexion with the Hungarian treasure the bowls seem to offer no clue as to the country where this may have happened, but in any case they are not likely to be west or northwest European, since neither shape nor ornament can be matched there. Like the other silver vessels they must have come from far afield.

Their date is hardly earlier than A.D. 600. This is the period of the Lampsacus treasure, which, as we saw, includes two bowls of the same type; we may also note that the jug in the Nagy-Szent-Miklas treasure which offers the closest comparison to the bowls has recently been connected with Sassanian work of the time of Khusrau II (590–629).[49] While the Hungarian finds thus warn us against ascribing too early a date to the Sutton Hoo bowls, these bowls, owing to the *terminus ante* of about 650 which applies to the whole of the Sutton Hoo burial, may in turn serve as an argument against giving too late a date to at least certain components of the Nagy-Szent-Miklas treasure.

[46] Cf. *e.g.* N. Fettich, *Die Metallkunst der landnehmenden Ungarn*, 1937, p. 272.

[47] Riegl, loc. cit. II, 97.

[48] N. Fettich, loc. cit. pp. 272 f; T. Horvath, *Die avarischen Gräberfelder von Üllö und Kiskörös* 1935, pp. 118 f; H. Schüller, loc. cit. p. 226.

[49] H. Schüller, loc. cit. p. 226.

The Spoons

The treasure further includes two silver spoons of a well-known type. They are 10 inches long and have a pear-shaped bowl attached by means of a solid disc to a handle which is square at the end nearest to the bowl, but changes to a round shape, terminating in a baluster-moulding. The square parts of the handles are inscribed in niello with the names +ΠΑVΛOC and +ΓAVAOC (FIG. 5) respectively.

In the late Roman and earliest Christian treasures we commonly find spoons of a somewhat different type, namely with a plain, or sometimes fluted handle ending in a point, while the disc connecting the handle with the bowl very often takes the shape of a pierced spiral. This is the usual form of the silver spoons of the fourth century,[50] which, incidentally, all seem to come from Western sites. As opposed to this our pieces belong to a group of spoons with solid discs and heavier and more elaborately moulded handles, perhaps derived from earlier classical shapes. Of this type, which occurs chiefly in the eastern Mediterranean region, several varieties are known, well represented by the treasures from Cyprus[51] and Lampsacus[52]. The pieces closest to ours are the following: one from Syria,[53] one from Gallipoli in Smyrna,[54] several in the Lampsacus treasure,[55] one from Cairo,[56] perhaps also one of the spoons in a treasure from Canoscio[57] which may be either Byzantine or an Italian copy of a Byzantine type.

The spoons from Gallipoli, Syria, and Lampsacus have on their discs monograms of the 'double-bar type' (usually based on an H, an M, or an N), which is a customary type of monogram until about the time of Justinian, when it gradually begins to be replaced by the cross-shaped monogram.[58] This provides a *terminus ante* for our type

[50] To quote more or less datable examples only: *Antiquaries Journal*, 1922, II, 90; Curle, loc. cit. p. 64 ff; O. M. Dalton, loc. cit. nos. 322 ff.; Cl. Boulanger, *Le Mobilier Funéraire*, 1902–1905, pls. 8, 20.

[51] O. M. Dalton, loc. cit. nos. 400–24.

[52] Ibid. nos. 380–92.

[53] *Syria*, 1926, VII, pl. 23

[54] F. Cabrol and H. Leclercq, *Dictionnaire d'Archéologie Chrétienne*, III, 2, 1914, fig. 3454.

[55] O. M. Dalton, loc. cit. nos. 387–91

[56] J. Strzygowski, *Koptische Kunst*, 1904, p. 322, no. 7188.

[57] *Rivista d'Archeologia Cristiana*, 1935, XII, 323.

[58] E. Weigand, in *Byzantion*, 1931, VI, 412; and in *Jahrbuch des deutschen Archaeologischen Instituts*. 1937, LII, 129 f.

of spoon. On the other hand it is not likely to be earlier than the sixth century, to which period the Lampsacus treasure as a whole seems to belong.[59]

Name-inscriptions are common on Early Christian and Early Byzantine spoons, and it was at one time a highly controversial subject whether they referred to owners or to saints. It is quite obvious that some of the spoons, especially of the above-mentioned fourth-century type, bear names of owners. But it is equally indisputable that others refer to saints, for we have a set of spoons from Syria which are explicitly dedicated to various apostles and evangelists, the words being: +ΕΥΛΟΓΙΑ ΤΟΥ ΑΓΙΟΥ ΠΑΥΛΟΥ (ΠΕΤΡΟΥ, etc.)[60] It is therefore probably more than pure chance that the names inscribed on a group of spoons in the Lampsacus treasure also coincide with those of apostles and evangelists,[61] and apart from these there are at least two isolated finds of spoons with names of apostles.[62] There can be little doubt then that in our case the inscriptions refer to Paul the Apostle.[63]

It remains to be asked, however, what purpose these spoons were intended to serve. They are often thought to have been used for liturgical purposes, and the fact that they are sometimes inscribed with sacred names seems to support this view. The new find, however, presents difficulties in this respect, for the Saint's pre-apostolic name Saul would hardly have been inscribed on a liturgical object. We are confronted with the task of finding a meaning for these spoons which is not liturgical and yet not altogether profane, and the best solution seems to be to regard them either as votive gifts to a church or as pilgrims' souvenirs of some sacred place.

[59] The treasure also includes a number of spoons with cruciform monograms (see below, n. 63), and therefore seems to belong to the transition period from one type to the other. The two bowls referred to above (note 37) also have cruciform monograms.

[60] *Syria*, 1930, XI, 210 ff.

[61] O. M. Dalton, loc. cit. nos. 380–4.

[62] *Bullettino d'Archeologia Cristiana*, 1878, p. 119 (Crema); Cabrol-Leclercq, loc. cit. fig. 3455 (Sasbach).

[63] The inscriptions on the spoons from Lampsacus have recently been discussed by Weigand (*Byzantinische Zeitschrift*, 1939, p. 136). While accepting the theory that they refer to saints, he points out that the omission of the words O AΓIOC is a sign of a date earlier than that given by Dalton ('6th-7th cent.') and he would undoubtedly use the same argument in the case of our spoons. But it so happens that the spoons from Lampsacus concerned have cruciform instead of 'double-bar' monograms, a form which Weigand himself has shown to belong to the period of Justinian at the earliest (see note 58).

As regards the first possibility, we know that spoons were frequently given to churches, mostly as part of larger gifts of silver plate. It seems that in the West these gifts were frequently made up of old silver, not of new pieces especially made or at least inscribed.[64] In the East, on the other hand, we have spoons with inscriptions which clearly characterize them as votive gifts to some particular saint.[65] Nevertheless there is also the possibility of spoons having served as pilgrims' souvenirs, and in this connexion we must return once more to the above-mentioned set of spoons from Syria. 'Eulogia' is a word of many meanings, but the archaeologist is first reminded of the pilgrims' ampullae which often bear analogous inscriptions,[66] and we may therefore ask whether these spoons were also souvenirs of holy places.[67]

Apart from leaden ampullae of the type best known from the treasures of Monza and Bobbio there are two main groups of ampullae in Early Christian times, the Menas ampullae, chiefly found in Egypt, and another group, almost exclusively confined to Asia Minor, which frequently shows portraits, and sometimes name-inscriptions, of apostles and evangelists.[68] This group is perhaps in some way connected with the cult of the twelve apostles, which had its centre in the Church of the Apostles in Constantinople.[69] It is a curious fact that, except for those which obviously refer to private persons, nearly all the names occurring on the spoons, including those on the set from Syria, are those of apostles or evangelists, and it is tempting to regard them as a parallel in a more precious material to the little terracotta flasks.

Again we have strayed far from the field of ascertainable facts, but this possibility seemed worth recording, and in its light new significance may be attached to the observation that in the records of the seventh century we more than once find references to sets of twelve spoons.[70]

[64] Cf. the plates given by Desiderius, Bishop of Auxerre, to the church of St. Stephen in that town (see *Bonner Jahrbücher*, vol. CXL, p. 83 f.); these were mostly decorated with secular subjects and must have been of private origin. The gift also included a large number of spoons; some even 'habent caudas scriptas'.

[65] Cf. *Syria*, 1926, VII, 110 ff.

[66] Cf. *e.g.* Dalton, loc. cit. no. 876: ΕΥΛΟΓΙΑ ΤΟΥ ΑΓΙΟΥ ΜΗΝΑ.

[67] Cf. Diehl's remarks in *Syria*, 1930, XI, 210 ff.

[68] O. Wulff, *Altchristliche und mittelalterliche Bildwerke*, 1909, I, 263 f. E. Michon, in *Mémoires de la Soc. Nat. des Antiquaires de France*, LVIII, 315 ff.

[69] Names of evangelists frequently figure in Eastern apostle lists. Cf. *e.g.* A. Heisenberg, *Grabeskirche und Apostelkirche*, 1908, II, 23 ff, 208 ff.

[70] Cf. *Bonner Jahrbücher*, CXL, pp. 84, 87.

Since both our spoons refer to one and the same apostle they can hardly have formed part of such a set, but it is quite possible that, at a sanctuary devoted to all the twelve pious apostles, pilgrims singled out the Apostle of the Gentiles for special worship.

A number of small silver objects remain to be mentioned. There is a cup, or ladle, 2 inches high, with the bottom narrowed in and decorated on its side with beaded borders and a row of gilt triangles. To this cup belongs a flat handle with a hinged ring-terminal which was fixed in a horizontal position to the rim, where a break is still visible. We may recall the Coptic bronze ladles of similar shape.[71] There is also a small bowl, $3\frac{1}{4}$ inches in diameter, with a foot-ring which is now loose, and a pair of drop-handles each attached to two escutcheons, which are said to have been fastened to a large leather bag (PLATE XXI), but are likely to have belonged, at least originally, to a silver vessel. They may be compared to a pair of handles in the Esquiline treasure.[72]

CONCLUSION

All the silver objects here discussed have suggested comparisons with foreign material. No piece could be proved to be of native workmanship, and from the point of view of Anglo-Saxon archaeology these finds are only important in so far as they give us quite a new idea of the manifold and far-flung foreign connexions of a seventh-century East Anglian potentate. But it is difficult to say how these objects reached England and whether they came here through the ordinary channels of trade, or as loot, or as gifts from foreign rulers.

The royal families of England had at that time direct connexions with the Mediterranean countries. The popes sent presents to the kings and queens.[73] Moreover the English rulers were in close touch with the Merovingians, and in France Late Antique and Byzantine silver must have abounded. The description of the vessels given by Desiderius of Auxerre to a church of his town[74] reminds us at once

[71] *British Museum Quarterly*, XIII, pl. 49A. Cf J. Strzygowski, loc. cit. pl. 28, no. 9061.

[72] *British Museum Quarterly*, XIII, pl. 49B. Cf. Dalton, loc. cit. no. 345.

[73] Bede, *Historia Ecclesiastica*, I, 32; II, 10, 11.

[74] See above, note 64.

of the Byzantine pieces with classical figure-subjects found in such great quantities in south Russia and elsewhere.

It is, however, equally possible that these objects came to England not as gifts but through trade, as was undoubtedly the case with the Coptic bronze vessels which are found so frequently in Saxon graves and of which the burial includes at least a local imitation. Here, too, France, and also Germany, acted as intermediaries. Our pieces suggest mass-production rather than great individual effort and are quite likely to have been imported by merchants. As for the bowl with the female head and the set of nine bowls, which seem to come from some rather obscure provincial or even barbaric country far away from England, trade is much more likely to have brought them here than any more personal relationship. The large dish may also have been a trade object, and in any case the stamps it bears by no means indicate, as has been suggested, that it was originally a present from the Emperor Anastasius himself. This implies a misconception of the function of these control-stamps, which are a matter of bureaucratic routine rather than a personal signature of the Emperor. Moreover, we saw that its artistic merits are not such as to make it appear a suitable token of imperial favour. Under these circumstances it not only is unnecessary to trace any personal connexion between the Emperor Anastasius and the royal family of East Anglia, though through King Clovis I and his family one could certainly be established : it is not even likely that the plate has anything to do with such historical links.

If then we ask what importance the Sutton Hoo silver has for general archaeology we must distinguish between the semi-barbaric work and the more straightforward Byzantine pieces. As to the former we cannot deny that we are still very much in the dark, and the best that we can hope for is that the new finds may arouse interest in the study of the metal-work made in the various border countries of the Mediterranean world in the Late Antique and Early Byzantine periods. That there were artists in the north and northwest of Byzantium who combined classical and barbaric traditions in metal-work has been made sufficiently clear by certain finds from south Russia,[75] Hungary[76] and Albania.[77] That Byzantine pieces were imitated by Teutonic craftsmen

[75] Matzulewitsch, loc. cit. chapter VIII, *passim*.

[76] See above, p. 57.

[77] Strzygowski, *Altai-Iran und Völkerwanderung*, 1917, pp. 1 ff.

in Western Europe is proved by the two silver bowls from Valdonne,[78] which even copy the control-stamps of their Byzantine models. But not until these various semi-barbaric styles and their relations to the big centres are more clearly defined can the Sutton Hoo pieces be given a more definite place in the evolution. The genuinely Byzantine pieces in the treasure, on the other hand, have been found to fit into well-known groups, and we saw that they supplement our knowledge of Early Byzantine metal-work in more than one respect. While the Anastasius dish is an example of the survival of a fourth-century style at a surprisingly late date, the spoons are chiefly interesting for their inscriptions.

As works of art the silver objects are not nearly as impressive as the gold ornaments, and the other pieces of Teutonic origin in the Sutton Hoo burial. But their archaeological importance is very great indeed, and they cannot fail to secure a prominent place in all future studies of the metal-work of the Dark Ages.

[78] See above, note 26.

The Sutton Hoo Ship-Burial

VI. The Coins: A Summary, by O. G. S. Crawford

WHEN it was known that 40 gold coins had been found in the purse at Sutton Hoo, great hopes were entertained that they would enable the date of the burial to be fixed accurately. Those hopes have not yet, however, been realized. Under existing conditions little progress is likely to be made; but we may look forward to the day when they are again available for study, and when numismatists themselves are free to consider the problems presented.

Meanwhile some provisional account of them is obviously demanded. A short description has been published in the *British Museum Quarterly* by Mr Derek Allen, of the Department of Coins and Medals; and, through the kindness of Mr T. D. Kendrick and Mr Allen, the present writer has had access to some unpublished remarks by Monsieur Pierre le Gentilhomme, of the Cabinet des Medailles, Bibliothèque Nationale. Monsieur le Gentilhomme has most courteously allowed these remarks to be incorporated in the present summary; and Mr Derek Allen and the British Museum authorities have granted similar permission in respect of Mr Allen's note. Use has also been made of some criticisms of that note by Mr Trelawney Dayrell Reed, with his kind permission. To all these the writer wishes to express his sincere thanks, with apologies for appearing at all in this rôle, even if only as a summarizer of the opinions of others.

Mr Allen begins by describing the contents of the purse. It contained 40 gold coins, the size of a threepenny bit but thicker, and two small gold ingots. The coins are those called *tremissis* (one-third of a solidus), which denomination was a standard coin of the Byzantine Empire. They were all struck at Merovingian mints within or on the borders of France, and nearly all have on one side a human head descended from an imperial portrait and on the other a cross. The *tremissis* was adopted by the Franks, who copied it with increasing divergence from the Byzantine model.

There were over a thousand Merovingian mints, since every town and village had the right of striking coins. The name of the place

where it was minted appeared on the coin, and also that of the moneyer, but some of the mints cannot now be identified. Except in the case of coins struck by kings and bishops and bearing their names, Merovingian coins cannot be dated exactly, but only by the criterion of style.

Not one of the Sutton Hoo coins can be definitely stated to have been struck by a particular king. One coin bears what seems to be a version of the name of the Merovingian king Theodebert the Victorious (534–548), but it is a later copy. Three coins bear unmistakable traces of the name of the Byzantine emperor Maurice Tiberius (582–602); they were struck in mints in the south of France, of which Arles and Viviers were two. But they were imitations struck without the emperor's authority, simply because his coins were generally acceptable. The remainder have no identification marks other than the name of the town and of the moneyer who struck them. Typical mints are Paris, Sens, Anvers, Dinant, Andernach, Le Huy. One was from Sion on the Swiss frontier and another from St. Étienne near Bordeaux. Three were left blank.

None of these coins can be precisely dated; 'though it is hard to say how much importance can be attached to the resemblance, there can be no doubt that the Merovingian king whose coins come closest to the bulk of those in this find is Clovis II (A.D. 638–657)'. A hoard buried at Bordeaux not long after 670 contained coins identical with two found at Sutton Hoo.

Mr Allen concludes that ' from the evidence of the coins, the Sutton Hoo burial cannot have taken place before about A.D. 600, is not likely to have taken place earlier than A.D. 640–50, and might even have taken place nearer A.D. 670 '. He says that the coin evidence ' does not definitely exclude ' the possibility that the grave is that of Redwald, who died about 630, but that ' they certainly seem to suggest a somewhat later date '.

Finally he points out that ' no coin in this find can be considered of English origin ', nor do any of them resemble any known type of the English *tremissis* (or *thrymsas*).

Mr Dayrell Reed criticizes, from a detached point of view, the expert opinion summarized above, and emphasizes the dependence upon style for dating, and the fact that the differences in style within this (Merovingian) series are, in Mr Allen's words, ' too nebulous to provide a secure criterion '. That being so, he questions the validity of the

resemblance—it is no more—to the coins of Clovis II, which being based on stylistic evidence, may, he submits, allow a margin of 30 years in either direction. ' That is to say, the only evidence supplied by the bulk of the coins is that they might have been struck at any time between 615 and 675 '.

He continues: 'The coin discussed in the fifth paragraph [of the original] is a late copy of an issue by Theodebert (534–548), and " *may* " not have been struck till many years after his death. In view of the increasing wealth and power of the Merovingian dynasty at this time it is improbable that imitations of the coins of deceased monarchs were produced " many years after their death ". Imitation is a symptom of declining values. Further, the later our hoard is placed, the more remarkable the preservation of this stray survival becomes '.

With respect to the three imitations of coins of Maurice Tiberius (582–602), Mr Dayrell Reed points out that they may have been struck either during his reign or at any time after it, and that ' the only evidence these coins supply is that they were not deposited in this hoard before 600 '. He sees nothing improbable in supposing that they may have reached the east coast of England by 625, even if they were not struck until after the emperor's death ; and there is nothing to show that they were not struck during his reign.

He questions whether the enormous number of mints and moneyers working at the same time does not altogether invalidate stylistic arguments. The quality of the output must have varied enormously, so that twenty different coins struck in different places during the same year might be arranged on stylistic grounds so as to show either progressive degradation or, inversely, improvement.

He concludes that, on the evidence of the coins, there is nothing which can legitimately be used as an argument against 625 as a probable date for the burial. The coin evidence proves only that it could not have taken place before 600, and it certainly cannot be used to support an argument against the historical and archaeological evidence. ' The jewelry, the silver, and the historic facts all support a date of about 625, and only by straining the numismatic evidence can that be made to oppose it '.

Monsieur le Gentilhomme admits the difficulty of dating the burial, but inclines to think that it took place ' during the first part of the reign of Clovis II (638–656), because [amongst the Sutton Hoo coins] those with the anchor-cross do not yet preponderate over the types issued in Neustria and Aquitaine '. He describes the Crondal

hoard (Hants) which contained ' about twenty Merovingian coins of Metz, Marsal, Meuvy, Paris, Rodez, Chalon, Quentovic [near Étaples], and Amiens, together with about eighty Anglo-Saxon coins. He points out that at Crondal Anglo-Saxon coins were plainly beginning to oust Merovingian ones, and that, with the exception of a barbarous *triens* of Phocas, Byzantine imitations and the issues of Provençal mints had ceased to circulate. These Byzantine imitations often occur in south-eastern England (at Sarre, Kent, for instance). ' The disappearance of Provençal coins, the appearance of an abundant Anglo-Saxon coinage, the fresh and great activity of the port of Quentovic . . . allows us to think that the Merovingian types [at Crondal] were buried at a date appreciably later than that of the issue of the majority of them—that is to say, towards the end of the reign of Clovis II, or even a few years after his death.

' The Sutton Hoo coin-find tends to show that up to about 650 the currency circulating in England at first consisted exclusively of Byzantine and Provençal coinage ; and that this was later superseded in favour of issues proceeding from mints in the different provinces of the *regnum Francorum*. Shortly after 650, but not until then, the Merovingian coinage was overwhelmed by a wave of Anglo-Saxon currency, issued mainly in Kent and in the counties south of the Thames. The theory that *thrymsas* [i.e. Anglo-Saxon coins, O.G.S.C.] existed before 650 does not seem to me to be tenable ; for if Merovingian coins and the most barbarous of their imitations circulated north of the Thames [as we know they did], there could have been no valid objection to the *thrymsas* also and their circulation. Since *thrymsas* are not present in a hoard as prolific as Sutton Hoo, it must be because they did not exist. So far from placing in the grave obsolete coins that no longer circulated, they put in the dead man's purse blanks which were not yet coined, and, besides, only such money as was then in circulation, that is to say, Merovingian money '.

In conclusion, the present writer will now summarize the discussion, so far as he is able, with the proviso that he has no special knowledge of the coinage of the period, and that he only is responsible for the statements which follow.

Mr Derek Allen considers that the Sutton Hoo burial ' is not likely to have taken place earlier than A.D. 640–50 ', but does not exclude the possibility that it may have been as early as 630 or as late as 670.

Mr Dayrell Reed, who had read only the note in the *British*

Museum Quarterly and had not seen Monsieur le Gentilhomme's then unpublished remarks, considers that the coin-evidence is too unreliable to be used for dating the burial at all; and that it certainly cannot invalidate a date about 625, which satisfies the other evidence far better than a later one.

Monsieur le Gentilhomme places the date of the burial before that of the Crondal hoard by about 10 or 20 years. Like Mr Allen he calls attention to a resemblance to coins of Clovis II (638–656). In a private letter, written before the remarks summarized above, he admits that Sutton Hoo may be dated 'at the beginning of the second third of the 7th century', that is soon after 633.

It is clear that, in the present state of knowledge, where such a wide range of possibilities exists, a difference of five or ten years cannot be detected; and that is all that separates the numismatists from their archaeological and historical colleagues.

The Sutton Hoo Ship-Burial

VII. The Salvaging of the Finds, by W. F. Grimes

THE removal of the chief finds from the Sutton Hoo ship was an exciting and exacting task extending over more than a week. My own participation began when the gold purse and its trappings—as well as some other objects, such as the whetstone—had been found. The dominant feature in my first view of the ship was a great three-foot purple-grey disk: the silver dish (PLATE XVIII), beneath which the lip of at least one other vessel was promise of more treasure to come. Other things there were already exposed—especially the two bronze bowls at the southwest corner of the burial deposit. But the urgent interest was centred on the dish and on the problem of whether it could be lifted entire, or whether steps should be taken by means of drawings and photographs to record its complete character before the hazardous work of lifting it began.

An examination at once suggested that things were better than they appeared. The surface of the dish was corroded and some of its ornament had flaked off in places. But the metal was thick and seemed to be strong, in spite of a crack along one side. There was every hope that if its underside and edge were carefully freed it might be lifted without disaster.

The necessary preliminary cleaning was completed in quite a short time on the morning of 25 July. But for various reasons the actual removal was postponed until the following day—although the dish was tantalizingly free in its bed. In the meantime we concentrated on two other outstanding groups.

First of all the bronze bowls. They are shown in PLATE XII, from which it will be seen that they were standing one inside the other, with a number of iron objects in close association. Three angons were actually pushed through the drop handle of the larger bowl, with spear-heads and other implements and weapons near at hand.

None of these iron objects was very robust, and corrosion was so far advanced that it was unlikely that any free metal could survive in any of them. To this factor of fragility were added other difficulties. The weapons were corroded not only to one another but also to the

side of the bronze bowl with which they were in contact. And this solid but fragile mass was securely held in place by the fact that shafts and sockets were not in a neat bundle but splayed through the handle of the bowl.

Only laboratory tests could have decided whether the angons would be capable of being separated and finally preserved. But it was abundantly clear that they could not be mechanically separated on the spot, with the exception of one or two spear-heads which were only lightly in contact. They were therefore cleaned up with care and freed from sand—a task which took some time because of the large amount of undercutting and the generally restricted conditions—and the whole complex of bowls and iron objects was lifted intact.

The second group was at the opposite end of the burial deposit : several large cauldrons, bronze with iron rims, an iron-bound wooden tub or bucket, and a mass of iron tackle (PLATE XVI). Two of the cauldrons had completely collapsed, the iron hoops of their rims lying on a thin layer of green-corroded bronze fragments ; and were beyond all aid. The third cauldron was broken and distorted but in large pieces, with which something might be done. The tackle consisted of a complication of rings and bars connected with elaborate double links all solidified together. But all these were left in their cleaned state to be lifted later : it was now time to return to the silver dish.

The dish was taken up on the afternoon of 26 July and as I had expected, without difficulty. But it had at once to be placed on one side without examination for the time being. Beneath it was an assortment of articles (PLATE V), most of them in a fragile and parlous state, the recording, removal, and packing of which took the undivided attention of all working on the site.

The most urgent were the organic materials—especially a number of small cups which were thought at one hasty glance to be made of wood. But there were also leather and other materials, all of which owed their preservation to their having been more or less encased in fabric and a flock-like substance which had kept them in a state of perpetual dampness while shutting out air. Delay here would have been fatal. The cups already showed signs of distortion and were damaged in other ways. And a hot drying sun poured into the bottom of the ship. If they were to be preserved for future treatment it was obvious that quick measures were called for ; equally obvious that the best hope for their preservation would lie in a reconstruction of the conditions which had already preserved them for so many hundreds of

years. The cups were therefore closely packed in damp moss in boxes with well-fitting lids to exclude as much air as possible, and stored in a cool place away from the sun. The leather and fabrics were put temporarily in bowls of water.

There is little to be said about the removal of the remaining objects from beneath the dish. The small silver bowl was taken up with its contents untouched but protected with a thick layer of moss; the bronze bowls were regrettably corroded and fragmentary, although there appeared to be hope for their escutcheons. The fine leather bag (PLATE XXI) in which the small dish lay was our despair. It had become ragged with decay, was cracked and fissured, with all its native toughness gone. The remnants were cleaned and photographed *in situ* (PLATE XXI); after that interest concentrated on the size of the largest piece that could be detached unbroken from the underlying wood of the trough (PLATE XXIV) in which all these objects had been deposited. The hectic operations connected with all that underlay the great dish occupied the whole of the afternoon and evening of 26 July. The trough and the objects surrounding it were left until later; the wood was protected from the drying action of sun and air by a thick covering of damp cloths.

On 27 July we turned once again to the western end of the burial chamber. From the area which had already produced the whetstone, several small objects were recovered of which nothing need be said here. Their removal however revealed an iron object which proved to be of quite unexpected size and character. As with cleaning its various features became clear we called it a lamp-stand (PLATE II). It was much corroded but appeared to be fairly strong, and in spite of its size was lifted quite easily. The surrounding sand was completely removed and the weight of the stand evenly supported by three people. It was placed on a wide plank of a suitable length on which its unsupported parts were propped with packing covered with cotton wool.

Near the lamp-stand was an iron-bound wooden bucket in an advanced state of decay. The iron binding was badly corroded; the wood had become friable. The vessel had therefore collapsed upon itself and become a more or less shapeless mass. Even so it seemed possible that careful removal might enable some sort of reconstruction to be attempted later—and there was the further possibility that the bucket might contain other material of interest.

Surplus sand having been removed, the bucket was bound firmly round with webbing, particular care being taken with the lower part,

upon which the greatest strain was to be placed. A piece of thin iron plate of slightly larger area than the bucket was then obtained and gradually introduced beneath its base, the sand being cleared away in front of the forward edge of the plate with a trowel (PLATE XXII). With the plate completely inserted the bucket was ready for lifting. But the iron was too thin to sustain the quite considerable weight of the bucket without buckling—which would of course have disturbed the already broken pieces. A flat spade was therefore inserted beneath the plate, which prevented any lateral pressure being inflicted on the bucket while providing a large surface for its support. Bucket and plate were then lifted together on the spade and placed on strong boards so that the spade could be withdrawn.* In this way no part of the bucket was seriously disturbed ; there was the possibility that with careful dismantling it might be reconstructed if in no other way, and its contents, if any, remained untouched.

The way was now clear for a return to the central deposit in which the gold purse had been found. In comparatively quick succession the gold objects remaining were cleaned and removed. Apart from the obvious necessity for care in cleaning they caused no difficulty, being completely uncorroded and essentially undamaged.

The sword presented an insoluble problem. Its hilt was decayed and corroded beyond hope of recovery except in detached fragments. Its blade scabbard and covering of fabric were corroded into a solid mass which had been badly damaged in the collapse of the chamber and was otherwise curiously brittle, cracked and fissured in many places. Its condition is well illustrated in PLATE IX. We were obliged to take it up piecemeal.

Near the sword-hilt was a smudge of purple indicating silver, of which we had been conscious for some time. It was roughly circular in shape and near it was what appeared to be the end of a slender moulded bar. This of course was the nest of bowls (PLATE XIII) and the attendant spoons. But the character of the objects only became apparent after prolonged and patient cleaning. The topmost bowls, one of which had slipped from the pile, were badly broken. For these

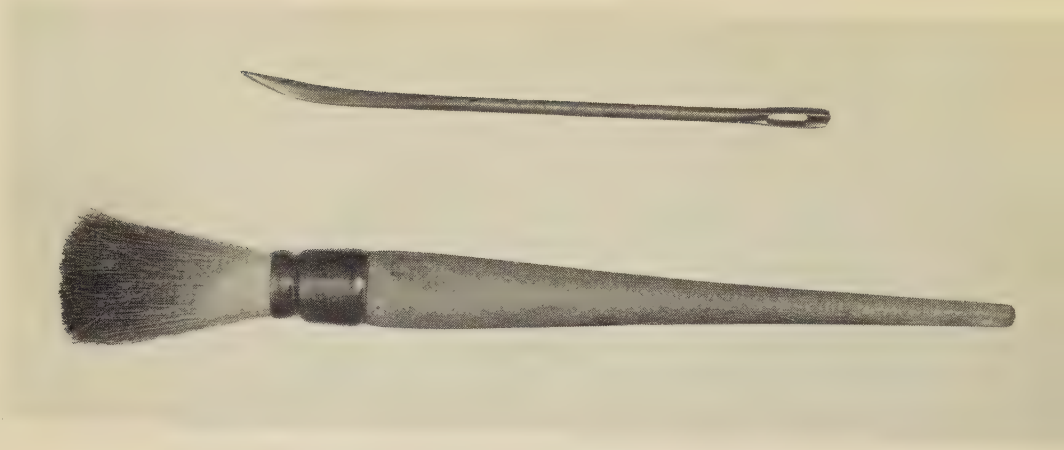
* I have used an almost similar method in removing very fragile Bronze Age pottery. The consolidation of two Bronze Age urns from Coity, Glamorgan (Sir Cyril Fox in *Archaeologia*, 1937 (1938), LXXXVII, 166–7, fig. 3 (p. 132) and plate XLVI) was only possible because they were lifted intact in this way and the crumbling pottery hardened and treated in the workshop before its contents (which helped to reinforce it) were removed.—F.W.G.

PLATE XXI



RIBBED LEATHER BAG WITH SILVER HANDLES FOUND UNDER THE SILVER BASIN (*see* pp. 18, 71)
Ph. O. G. S. Crawford

facing p. 72



THE BODKIN AND BRUSH USED DURING EXCAVATION (*see* p. 74)



AN EARLY STAGE IN THE REMOVAL OF IRON-BOUND WOODEN BUCKET (*see* p. 71)
Ph. O. G. S. Crawford



IRON-BOUND WOODEN BUCKET JUST BEFORE REMOVAL (*see* p. 72)
Ph. O. G. S. Crawford



WOODEN TRAY UNDER SILVER DISH, WITH CHAIN ARMOUR, AXE, ETC. (*see* pp. 19, 71)
Ph. O. G. S. Crawford

we were obliged to be content with fragments and a photograph. The pile itself was completely freed from sand around the base and lifted by means of an iron plate as before (but without the spade).

The greater part of 28 July was devoted to what was perhaps the most intricate piece of cleaning: that of the remains of the shield. The central feature was the massive boss (PLATE XV), which was solid and unlikely to cause trouble. But radiating irregularly from it were several richly decorated bronze mounts: some of almost paper thinness, some face upwards, some reversed, at all angles and presenting a picture of complete confusion which is well shown in PLATE XV. To add to the



FIG. 6. SILVER MOUNTS FROM DRINKING HORNS
By permission of the British Museum

difficulties this complex was partly covered with the remains of a fine wooden object ornamented with gold leaf. None of the material of the shield itself appeared to remain. The *umbo* was lifted without difficulty, but freeing the various adhesions of the mounts was a slow and tedious business. Each was lifted separately on two or more trowels after it had been drawn in on the plan.

And lastly, for the purposes of this account, there were the horns, which were taken up on 29 July. Two of them were in a comparatively complete state; of the remainder only the mounts survived, consisting of binding and vandyke patterns of triangular plates resembling nothing as much as a series of purplish hand- or star-shaped imprints against the black ground of the wood upon which they lay (PLATE IV). The metal was very thin and brittle, and the only hope of preserving the mounts

intact seemed to be to lift them on the wood, itself decayed and broken. The wood was therefore carved up and each group of mounts lifted separately by inserting trowels beneath it.

This account of the salvaging of the treasures of Sutton Hoo is not therefore a story of new and elaborate technical methods, but rather of the way in which simple readily available means were employed to deal with an unexpected range of materials, each, apart from the gold objects, with its own set of problems. In some cases one could visualize an instrument or method by which the solutions would have been the more easily obtained. I longed several times for a broad-bladed implement, a kind of fish-slice, which (in various sizes) would have been ideal for lifting such things as the horn-mounts, the silver bowls, and even the wooden bucket. But only a specially made tool could have combined all the necessary qualities : strength to sustain weight and pressure, thinness and a sharp edge of a suitable outline for easy insertion beneath the object to be removed.

The absence of some luxuries had to be countered by patience and perseverance. Our tools were of the simplest kind (PLATE XXII). Here we were fortunate in our soil : the sand yielded readily to treatment, and especially, when dry, to brushing for the more delicate objects. For these the usual procedure was a sequence of alternate phases of brushing and drying, the surface sand being removed to expose a new damp sand which in its turn was allowed to dry. Paint brushes were most useful for this purpose. In actually carving sand away from heavy objects calling for no special treatment of the surface—and also for much of the finer work—I was very grateful for a curved bodkin or packer's needle, especially as long as its point remained sharp. The curve of the needle was particularly useful for negotiating hollows, angles and undercutting ; it provided a sensitive ' feeler ' for unexpected shapes ; and since it was not mounted in a handle it could be used in a restricted space.

Of the general practice of cleaning it remains to be said that each specimen, whatever its material and character, was freed as completely as possible from its matrix : the importance of this first step cannot be too strongly emphasized. (Even sand when damp is strongly prehensile, and the extra strain imposed by its adhesion even to a small area might well result in damage to a fragile specimen). Care in coaxing the sand away without damaging the surface and in lifting the object so that all its weight was equally distributed, with no strain on any one part,

completed the process. Such precautions may appear to be obvious, but were especially important on a site where all except the most precious metal was badly decayed and corroded.

In the circumstances, dealing as we were with a wide range of objects and materials all calling for laboratory treatment, and not knowing what else we might have to face, it was sound policy to remove even the most unpromising of finds with as little interference as possible. Chemical and other methods have now replaced more direct mechanical treatment of antiquities ; here mechanical treatment was reduced to the minimum necessary to remove the object from the ground. In addition, even with much broken and apparently worthless objects, much time and trouble were expended in attempts to maintain the various parts and fragments in their relative positions, as a very valuable first step in reconstructing the original or obtaining maximum information from it by more leisured laboratory examination at a later stage. This was not always successful and sometimes was impossible, even from the beginning. But every attempt was made to see that no scrap of evidence from Sutton Hoo was lost by lack of care and patience in the field.

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VIII. Who was He? by H. Munro Chadwick

I WAS unfortunately not able to be present at the inquest held on 14 August, but I understand that no satisfactory evidence of identity was offered. Indeed the prevalent view now* seems to be that the tomb never contained a body—that it was constructed as a cenotaph.

For cenotaphs in the Anglo-Saxon period I do not know of any good evidence.[1] But we can hardly say with certainty that any of the cemeteries previously known were royal—apart from St. Augustine's, Canterbury. It is not impossible therefore that a cenotaph may have been constructed for a king who lost his life at sea or on some distant expedition, from which his body could not be brought home.

In any case there seems to be no reason for doubting that the barrow is in some sense a tomb or mausoleum. It is one of a group, which evidently form a cemetery,[2] more or less contemporary with the buried funeral ships at Vendel. Later analogies, from the Viking Age, are very numerous in the North. Indeed I do not know of any buried ships which were not funeral ships.

To facilitate the process of identification, we may note first that the person commemorated seems to have been a man. This is placed beyond reasonable doubt by the presence of weapons and armour, and by the absence, as far as I know, of any articles which would suggest a woman.

Next, I find it impossible to believe that in the times with which we are concerned a treasure of such amount and value can have belonged

* This is the view that is, and always has been, held by all those who took part in the excavation; there has been no change of view. The idea that a body was buried in the ship originated in the imagination of an uninformed newspaper writer. It would be a perfectly reasonable one if it could be supported by any evidence.—O.G.S.C.

[1] An instance (from Kent) is cited by Baldwin Brown, *The Arts in Early England*, IV, 720; but the evidence is hardly convincing. Mr Lethbridge tells me that he does not know of any examples; likewise also Mr Phillips.

[2] I wish to take this opportunity of expressing my grateful thanks to Mr C. W. Phillips for showing me the site and supplying me with detailed information about the excavation from the beginning.

to anyone except a king. According to the heroic standards then recognized, all men of the highest rank were dependent on the king and expected to present to him, as their lord, everything that they acquired by their exploits—though doubtless they looked for rewards. We may refer to *Beowulf*, 2052 ff, where the hero, on his return home, presents to the king and queen all the treasures which have been given to him at the Danish court. There is no evidence that England in the seventh century possessed a wealthy independent class, whether mercantile, industrial or professional.

It does not necessarily follow that the person buried or commemorated was himself a king. We know of extravagant funeral honours paid by kings to their mothers and wives ; and this funeral may possibly have been in honour of the father or other near relative of a king. But on the whole it is not very likely. The great funerals we hear of in early Teutonic history and tradition are those of kings themselves ; we may cite *e.g.* Jordanes, *Get.* 49, and *Beowulf* 3134 ff. At all events it is difficult to believe that a cenotaph on this scale can have been intended for anyone except a king.

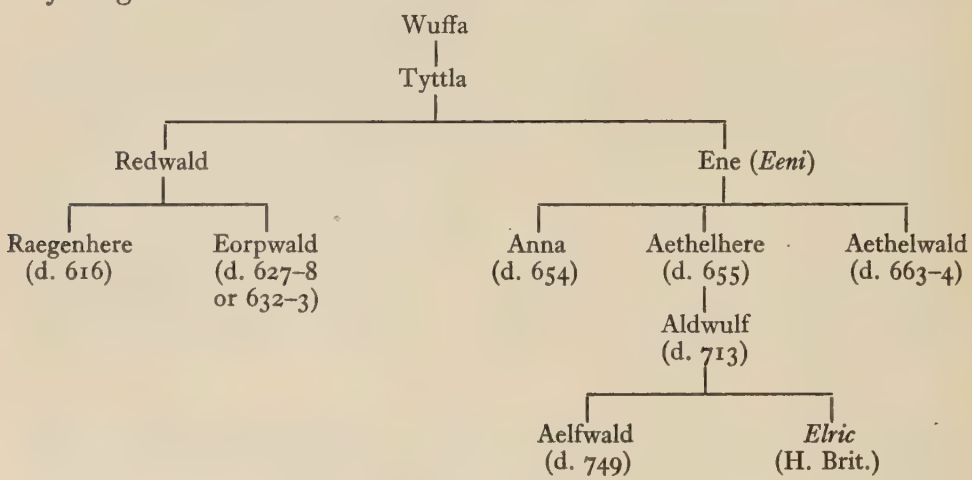
Next, there can be little doubt that the owner of the treasure was the king within whose dominions the mausoleum lay. The possibility that the funeral was that of a stranger is hardly worth taking into account. The barrow is one of a group of about ten—which seems to indicate a family burial-place. Moreover, the grave of a stranger which was known to contain immense wealth could hardly have escaped plunder in the course of the next three or four generations, during which the tradition of the funeral was remembered. On the other hand its preservation can be satisfactorily explained, if this cemetery was the burial-place of a native royal family, who had an important residence within a short distance.

From the earliest times of which we have any record the estuary of the Deben, including Sutton Hoo, has belonged to East Anglia. Our earliest record, in Bede's *Ecclesiastical History*, III, 22, relates to a visit paid, between 655 and 664, by Swithhelm, king of Essex, and Cedd, bishop of Essex, to the East Anglian king Aethelwald at Rendlesham, which is described as an East Anglian royal residence (*vicus regius*). Swithhelm was then baptized by the bishop ; and Aethelwald was his godfather. Rendlesham is the place where the silver crown, weighing 60 ounces, was dug up in 1687 ; it lies on the Deben, less than four miles north of the barrows.

It is not impossible of course that the district was once included in

Essex. But we have no evidence that that kingdom ever extended beyond the mouth of the Stour. Moreover it is difficult to avoid suspecting some connexion between the barrows at Sutton Hoo—at least two of which contain ships—and the only other buried ship dating from Anglo-Saxon times, which was found near Snape, on the Alde, about six miles to the northeast of Rendlesham. So, with such evidence as we have at present, we must, I think, conclude that Sutton Hoo was a burial-place of the East Anglian royal family, and probably connected with the royal residence at Rendlesham. Possibly the burial on the Alde was connected with the same residence.

The East Anglian royal family were called Wuffingas. Their genealogy is preserved in a good number of records, the best of which is a document (register) dating from early in the ninth century and contained in MS Cotton Vesp. B 6, fol. 108 ff.[3] We may also compare Bede, *Hist. Eccl.* II, 15, and the *Historia Brittonum* (Nennius), cap. 59. For the period which here comes in for consideration the genealogy may be given as follows :



Anna, who seems to have come to the throne about 640, was preceded by two kings named Sigeberht and Ecgric, whose positions in the genealogy will need discussion below.

From Wuffa the genealogy is carried back in the seventh generation to Caser, son of Woden. This name (*i.e.* Caesar) and the fact that no

[3] Published in Sweet, *The Oldest English Texts*, p. 167 ff (this list on p. 171). The text is illegible in some places, but can be restored by the help of MS C.C.C.C. 183.

connexions of the genealogy have been found outside Britain suggest that in its present form the genealogy is not very ancient.

In the *Historia Brittonum*, cap. 59, which is derived from an English document of the eighth century, Wehha (*Guechan*), the father of Wuffa, is said to have been the first to reign in Britain over the *gens Eastanglorum*. To judge from the genealogy Wehha would seem to have flourished in the first half of the sixth century, *i.e.* nearly a century after the English invasion. Apart from this no records or traditions of the origin and early history of the kingdom have been preserved. There are certain earthworks in Norfolk which suggest an ancient division of the country between west and east; but the problem cannot be discussed here.

Mention, however, should perhaps be made of the story[4] of Radiger and his English fiancée, which is told by Procopius, *Gothic War*, IV, 20, and relates to times about 545–50. The heroine's brother, who is king of the English, might well be Wuffa.

Otherwise we hear of Wuffa and his son only from entries in compilations dating from the thirteenth century. The entries may be derived ultimately from early records, though this would be difficult to prove. In Matthew Paris' *Chronica Majora* Wuffa is said to reign in East Anglia under the year 571, while in 577 he is said to have been succeeded in the kingdom by his son Titilus (*i.e.* Tyttla). Both in 599 and in 624 we find an entry that on the death of Redwald, king of the East Anglians, Eorpenwaldus (*i.e.* Eorpwald) undertook the government of the kingdom. In the former case (*i.e.* under 599) this is ob-obviously due to some scribal mistake; it would seem to have displaced an entry stating that Redwald had succeeded Tyttla in that year.

For Redwald and his successors we have a certain amount of information from Bede's *Ecclesiastical History*, which was completed in 731. Unfortunately only a few precise dates are given.

Redwald is said (II, 5) to have been the fourth of the English kings who acquired a supremacy or high-kingship (*imperium*) over the other English kingdoms.[5] It may be remarked here that this position involved a personal relationship, which was probably expressed by the

[4] Cf. Baldwin Brown, *Arts in Early England*, IV, 764 f; Chadwick, *Heroic Age*, p. 97 ff.

[5] The Saxon Chronicle (*ann.* 827), translating this passage, applies to the high-king the term *Bretwalda* (in the oldest text) or *Brytenwalda*. The latter term seems to mean 'ruler of Britain', the former 'ruler of the Britons' (as in the next following sentence in Bede's narrative).

terms ' father ' and ' son '. It involved also no doubt the duty of military support and the recognition of rights possessed by the supreme king over the property of his vassals. In later times grants of land by kings of the smaller kingdoms commonly specify that the consent of the Mercian king has been obtained; and as early as 635 we find the Northumbrian king Oswald (who was then high-king) associated with Cynegils, king of Wessex, in granting Dorchester (Oxfordshire) to Bishop Birinus (cf. Bede, *H.E.* III, 7).

From the latter part of the sixth century the high-kingship seems to have been a more or less permanent institution, with few and short intervals. Redwald's immediate predecessor in this position was Aethelberht, king of Kent, who died 24 February 617; but Redwald had acquired the high-kingship before this date. His power was in all probability due to conquests from his western neighbours, the Middelengle; but we have no definite information.

We learn that the exiled Yorkshire prince Edwin had taken refuge with Redwald (Bede, II, 12). He was pursued by the Bernician king Aethelfrith, who had conquered the kingdom of his family. The northern kings, it may be observed, did not recognize the high-kingship at this time. By great offers of treasure, followed by threats, Aethelfrith almost induced Redwald to give up the fugitive. But at the last moment Redwald's queen dissuaded her husband from doing so, saying that it was unseemly to sell a good friend for gold, or to forfeit for the sake of money his good faith, which is more valuable than treasures. Redwald then took up the cause of Edwin and supported him with an army. They defeated and slew Aethelfrith on the Idle—presumably near Bawtry. Redwald's son Raegenhere was also slain in the battle; but Edwin acquired the rule of all Northumbria. This was in 616.

Redwald is said (Bede, II, 15) to have been converted to Christianity when on a visit to Kent. But on his return home he was seduced from the faith by his wife and some wrong teachers. So he compromised by setting up one altar (*altare*) to Christ and another (*arula*) to demons in the same sanctuary. No date is given for this; but presumably it took place during the time of Aethelberht's supremacy, *i.e.* some time before 617. It was stated by king Aldwulf that this sanctuary remained until his time, and that he had seen it in his childhood.

The same chapter relates that king Eorpwald, son of Redwald, was persuaded by Edwin to embrace Christianity, with his kingdom.

Soon afterwards he was killed by a heathen called Ricberht; and the country remained heathen for the next three years. Then the kingdom came into the hands of Sigeberht, a most learned and Christian man, who had been in exile in Gaul. He was joined by Bishop Felix of Burgundy, who fixed his see at Dunwich; and the whole kingdom was converted. No dates are given.

It is stated (Bede, III, 18) that Sigeberht had fled to Gaul to escape the hostility of Redwald. After reigning for some time he withdrew to a monastery which he had founded (at Bury, according to the *Hist. Eliensis*, I, 1), and gave up the kingdom to Ecgric, his *cognatus*,[6] who had already been reigning with him. After a considerable time the Mercian king Penda invaded the country. Sigeberht was forcibly brought out to lead his former subjects. But both he and Ecgric were killed.

These two kings were succeeded by the excellent king Anna, who also was eventually killed by Penda. Again no dates are given. But we find Aethelhere, Anna's brother and successor, accompanying Penda to war; they were both killed at the battle of Winwaed (in Yorkshire) on 15 November 655 (Bede, III, 24).

The dates of Eorpwald's conversion and death and of Sigeberht's accession can be calculated approximately from Bede (III, 20). Felix held the bishopric for 17 years, and his successor, Thomas, for five, while the third bishop, Berhtgils, was consecrated by archbishop Honorius, who died 30 September 653. Consequently, the arrival of Felix and the accession of Sigeberht cannot be later than 631. On the other hand Edwin can hardly have converted Eorpwald before he was himself converted, *i.e.* in the spring of 627. The Saxon Chronicle, however, records Eorpwald's baptism in 632 and that Felix preached in 636. The discrepancy is no doubt due to misreading of some figure in ancient times; but it is perhaps not very important for our purpose. On the whole the earlier dates seem to be the more probable, *i.e.* 627–8 for Eorpwald's conversion and death and 630–1 for Sigeberht's accession.[7]

A few more details may be added from other sources. The Saxon Chronicle (A,B,C) dates Anna's death in 654. The *Historia Eliensis*, I, 7, says he was buried at Blythburgh, and that his body is still (*i.e.* in the twelfth century) venerated there. We may probably accept this,

[6] Unfortunately the meaning of this word seems to be quite ambiguous; cf. Plummer *Baedae Op. Hist.*, II, 48.

[7] Cf. Plummer, *Baedae Opera Historica*, II, 106.

though the work contains a good many mistakes. The date 637 assigned to Anna's accession would seem to be too early; but he was reigning in 645–6, when he converted Coenwalh, king of Wessex.[8]

I understand that the evidence of the coins rules out the possibility of any date before 600, and renders improbable any date before 640, for the burial at Sutton Hoo. By the latter date East Anglia was at least nominally a Christian country. Is it possible that a burial of this kind—and on this scale—could have taken place in Christian times?

If the possibility be admitted, there are five kings to be taken into account—Sigeberht, Ecgric, Anna, Aethelhere, Aethelwald. Of these we may almost certainly eliminate Sigeberht, the monk, and Anna, who also was a very religious man,[9] and is said to have been buried at Blythburgh. Aethelwald would also seem to have been active in converting his friends; and he was probably the person responsible for the destruction of Redwald's 'compromise' sanctuary. There remain Ecgric and Aethelhere, both of whom were killed in battle, the former probably on the western frontier—perhaps in Cambridgeshire—the latter in Yorkshire. Of Ecgric we know nothing. He may have been either a younger brother of Eorpwald or an elder brother of Anna. Aethelhere was married to a Yorkshire princess, Hereswith, sister of St. Hild and cousin to Edwin; but she left him, in or before 647, and became a nun at Chelles, near Paris. It is possible that he was a not altogether unwilling follower of Penda, since he is said to have begun the battle (*auctor ipse belli*) in which they both lost their lives.

The burial at Sutton Hoo then might belong to either Ecgric or Aethelhere. Yet it seems rather strange that a funeral of such heathen splendour should be given to either the partner of a monk or the husband of a nun. And it could hardly have been carried out without at least the consent of the king's successor, who was in the former case Anna, in the latter Aethelwald. One might expect that both these kings would have demurred, both on religious and financial grounds, to such a method of disposing of the royal treasury, more especially in a moment of national disaster, as was clearly the case at Ecgric's death.

The custom of burying objects of various kinds with the dead did not cease with the introduction of Christianity. Some rich Frankish cemeteries, *e.g.* at Worms and Mainz, were attached to churches; and

[8] Cf. Bede, *H.E.* III, 7; Saxon Chronicle, *ann.* 645, 646.

[9] All his daughters became nuns, and three of them saints, while his son-in-law, Erconberht, king of Kent, was the first English king to enforce the renunciation and destruction of idols and the observance of Lent.

in these there have been found a number of graves, well furnished with both weapons and ornaments, and containing grave-stones with Christian inscriptions, which originally no doubt stood or lay above the graves.[10] I do not know whether such striking evidence has been found in this country, though the cemetery at Burwell, which was not very rich, was attached to a church. But there can hardly be any doubt that a good number of cemeteries, especially in Kent, which are attributed to the seventh century, were in use in Christian times.

A literary record of the custom is preserved in *The Seafarer*, 97 ff.[11] The poem has been describing the sorrows of old age. Then it continues: 'Though he will spread with gold the grave of his own brother, and bury with the dead in treasures of various kinds what he wishes to have with him, yet gold, which he has hidden while he is still alive here, will not be able to help a soul which is sinful, in place of the fear of God'. This obviously reflects the feeling of a time when the custom was regarded with disapproval, but not actually prohibited. The date of the poem is uncertain.

It may be doubted greatly whether extravagance on the scale found at Sutton Hoo ever prevailed in the burials of Christian times. But the first effect of the conversion was not so much the discontinuance of grave-offerings as a change in the place of burial. People were now taken to churches for burial; and, just as in Iceland in later times, this change probably took place at once. Kings and members of their families were buried within the churches.[12] Thus, according to Bede (I, 33, II, 5), Aethelberht and his wife Berhte were buried in St. Augustine's, Canterbury, which he had himself founded; and so also all the subsequent kings of Kent, several of whose tombs are still visible. Sebbe, king of Essex, was buried in St. Paul's (*ib.* IV, 11). In York Minster were buried two infant children of Edwin (*ib.* II, 14), its founder, and also Edwin's head (*ib.* II, 20), and doubtless many later Northumbrian kings (*e.g. Saxon Chron.* 738).[13] Mercian kings were

[10] Examples may be found in Lindenschmit's *Handbuch*, pp. 100 ff.

[11] Kershaw, *Anglo-Saxon and Norse Poems*, p. 25.

[12] For early churchyards see Baldwin Brown, *op. cit.* I, 260 ff. But there is much more evidence than is indicated there. The case of Burwell is illuminating. So also is the cemetery at Saffron Walden, which was misunderstood by Baldwin Brown. He overestimated the break in the continuity of life caused by the English invasion. The character of the *loca sancta* (*ib.* 253) is clear from the case of Hoddom; and numerous other churches, at least in the north and west, doubtless had a similar origin.

[13] Other Northumbrian royalties were buried in the abbey of Whitby (*H.E.* III, 24).

buried at Lichfield and Bardney (*ib.* 716), and other churches. The same custom prevailed among the Franks. Clovis, the first Christian king[14]—converted in 496—was buried in the Church of the Apostles at Paris; and his descendants seem regularly to have been buried in churches.

Some of the burials noted above took place within a very short time after the conversion—those of Edwin's children within five or six years at most. The custom marks a definite break with the past. The burial places of the past were known in Christian times as 'heathen tombs'. Whatever may have been their form, they are frequently mentioned in the descriptions of boundaries of estates which occur in legal documents.

Treasure buried in barrows is sometimes called 'heathen gold' (*e.g. Beowulf* 2276). But it is not clear that burial in a barrow was in itself regarded as necessarily heathen,[15] unless it had heathen associations. The feeling may rather have been that such burial did not possess the virtue of benefiting the soul, which was probably attributed to burial in a consecrated place. Sometimes barrows contain objects which indicate Christian ownership, as in the Benty Grange and White Low barrows in Derbyshire. If this means that the occupants of the barrows were themselves Christians—which on the whole is more likely than not—the most probable explanation is that burial in a consecrated place was not available to them; the Mercian government was heathen until 655. But these considerations do not apply to the case we are discussing. After 640 an East Anglian king or prince would have had no difficulty in obtaining burial in a consecrated place. Moreover the Sutton Hoo cemetery can hardly have been free from heathen associations. Its use must at least have begun in heathen times; for one of the barrows shows cremation. We must conclude then, if the funeral took place after 640, that it was due to a deliberate reversion to heathenism.

The greater part of the cemetery still awaits excavation; and it may have yet further surprises in store for us. But in the meantime it seems to me that any dating of the ship-funeral after 640 presents very serious difficulties.

[14] I do not know of any evidence that his father, Childeric, was ever converted. But it was in the cemetery of a church in Tournai that his grave was found in 1653.

[15] It may be observed that the (Continental) Old Saxons after their conquest by Charlemagne, in 785, were required to bury Christians in cemeteries of the church, and not in 'barrows of the heathen'. Cf. Baldwin Brown, op.cit. I, 260f.

Among the kings who died before 640 Redwald first claims consideration. He was the most powerful, and probably the wealthiest, ruler of his day in England, and the only East Anglian king who ever attained to the high-kingship. Much of his wealth may have been derived from Kent, when he displaced Aethelberht in the high-kingship; but the story noticed on p. 80 shows that other sources of wealth also were open to him. Whatever English skill could produce would be at his disposal; and any craftsman would be anxious to enter his service.[16] We may refer to the description of the goldsmith in *The Fates of Men*, 72 ff: 'For one a marvellous gift is provided in the working of gold. Very often he arms (?) and adorns finely the sons of the king of Britain (?); and the latter in reward grants him large estates, which he receives gladly'.

For the date of Redwald's death we are dependent on thirteenth century authorities (cf. p. 79); but there is some reason for believing it to be approximately correct. From the events of the year 626, related by Bede (*H.E.* II, 9)—the attempted assassination of Edwin by an emissary of the West Saxon king Cwichelm, and the consequent invasion of Wessex by Edwin—we may infer that there was then no undisputed high-king in the country, and probably also that Edwin and Cwichelm were rivals in claiming that position.

Of the other kings who died before 640 very little is known. Eorpwald apparently did not reign long—perhaps not more than three years. He was converted by Edwin, but murdered soon afterwards by a heathen named Ricberht. The country then reverted to heathenism for the next three years; but we do not know who was king. If Sigeberht, who was a strong Christian, gained the throne by force of arms, he would hardly have given such a funeral as this to his defeated opponent. But some king may have died during the interval, or possibly Ecgric's reign may have begun from Eorpwald's death.

In addition to Eorpwald, Redwald had another son, called Raegenhere, who, if we may judge from the initial *R-* of his name, was probably his eldest son. He was killed in battle in 616, so must have been born before 604.

Of Redwald's brother Ene we know nothing except that his son Anna cannot have been born much after 600. Sexburg, daughter of Anna, was wife of Erconberht, king of Kent, who reigned 640–664.

[16] This period was a great time for craftsmen who were in the service of kings. St. Eligius, bishop of Noyon, had been goldsmith to king Dagobert I (622–638).

The name of Anna's queen is not recorded ; but, if we may judge from the names of her two eldest daughters, Saethryth and Sexburg, she was probably a daughter of Saeberht, king of Essex, and therefore not born before 600. Hereswith, wife of Aethelhere, was born not later than 617. It would seem then that the children of Redwald and of Ene were probably born about 600–615, and consequently the fathers themselves, like Saeberht, about 570–580.

Bede describes Sigeberht as brother of Eorpwald ; but Florence of Worcester says he was only his half-brother, on the mother's side. Florence usually—not always—follows good authorities ; and this statement derives some support from Redwald's hostility to Sigeberht. It would seem then that Redwald had married the widow of a previous king, or at least an heir to the throne, This might be either his father (Tyttla) or an elder brother of his own, whose name has not been recorded. But if the funeral was in honour of this person, its date cannot be appreciably later than 600. It is more likely to have been that of the later and wealthier man.

The lady's name also has unfortunately not been preserved. She was evidently a person of much force of character, and a staunch heathen ; and it is tempting to see in her the person responsible for the funeral. She would presumably have charge of the treasury,[17] at least if her children were young. It may well have been through her influence also that the Christians of the next generation, including her own sons, were induced to respect and protect the mausoleum. And in the same way we may account for the curious fact that the unorthodox sanctuary, for which she was largely responsible, was allowed to survive for so long.

For the funeral of a high-king an interesting parallel is to be found in the opening scene of *Beowulf*. The subject is probably a mythical character—Scyld, the eponymous ancestor of the Danish royal family, who were called Scyldingas—but he is described as a typical heroic high-king. He was a knight who inspired terror, and deprived many royal families of their palaces. He attained such success in the world and gained such glory that all his neighbours across the sea had to obey him and pay him tribute. When the hour of death came, his men brought him to the sea, in accordance with his directions. ' At that haven stood the prince's vessel with curved prow, iceclad and ready for departure. Then they laid their dear king, their famous and

[17] Cf. *Beowulf*, 2369 ff ; Paulus Diaconus, *Hist. Langobard* II, 29.

generous lord, beside the mast in the bosom of the ship. Many jewels and treasures from distant lands had been brought together there. I have never heard of a vessel more handsomely equipped with swords and mailcoats, with weapons of war and raiment of battle. In its bosom lay a mass of jewels, which were to make a long journey with it into the sea's domain . . . Moreover above his head they fixed aloft a golden standard. They gave him to the sea to carry; they committed him to the ocean. Sad were their feelings, sorrowful their hearts. No man—no heroes on the earth, even they who govern palaces—can say for certain who received that burden'. The ship here is of course set adrift, not buried. But in other respects the passage offers interesting analogies.

To sum up—nothing has yet been found which can produce a decisive identification of the person buried or commemorated in the mausoleum. But there is no reason for doubting that he was a wealthy East Anglian king. The evidence of the coins is said to exclude a date earlier than 600 and to render a date before 640 improbable.[18] The latter date falls within Christian times. If it is accepted, the owner of the mausoleum was most probably either Ecgric (killed soon after 640) or Aethelhere (killed in 655). Such a burial, however, is not what one would expect for either of these kings from what little is known of them; and in general it would seem to be quite abnormal in Christian times. The excavation of the neighbouring barrows may clear up the difficulty. But in the meantime I think the date 640 is too late. If the burial dates from 600–640, all probability is in favour of the great and wealthy high-king Redwald, who seems to have died about 624–5. He may possibly have buried the objects himself at the funeral of a relative; but what we know of the personnel of the period suggests that his wife was the person responsible, and consequently that the person commemorated was probably Redwald himself.

[18] The reader may now be referred to Mr Crawford's summary (pp. 64–8) of the Coins found at Sutton Hoo, which I had not read when this was written.

Reviews

DANMARKS OLDTID.* *By* JOHANNES BRØNSTED. *Copenhagen: Gyldendal.* Vol. I, *pp.* 375 *and* 268 *figures ;* Vol. II, *pp.* 304 *and* 265 *figures.* 82 *kroner.*

It is now more than forty years since Sophus Müller published *Vor Oldtid*, that admirable book which, generally in the German translation, has been a familiar tenant of every student's book-shelf. Since 1897 a number of new sites have been explored and many new methods of research and analysis have been discovered, so that it has become increasingly urgent that a full account should be given of Danish archaeology. The general reader has indeed been kept *au courant* of the more important developments by such comprehensive works as those of Ekwall, Shetelig and others. But these authors have aimed at covering so wide a field in Scandinavian archaeology that they have done far less than justice to the pre-eminent importance of Denmark. It is fitting and right therefore that three large quarto volumes, superbly equipped with illustrations, should now be devoted to Danish prehistory from the Palaeolithic period to the end of the Roman Empire.

The first two volumes are the subject of this present notice. They come from the pen of Johannes Brønsted, well known as the Director of the National Museum in Copenhagen, the able and learned successor of C. J. Thomsen, J. J. A. Worsae and Sophus Müller : ' The goal of archaeology is the history of culture. Its material is the discoveries made in the ground '. This sentence, from the preface, might serve as a motto to the whole book.

The author shows equal ability in both departments of his subject. His descriptions of sites, objects, and the technique of manufacture, could not be more penetrating and exact, but it is the deductions and generalizations from his material which show the author at his very best : an historian as well as a prehistorian of the first rank. To follow him in all the details of his argument requires a competent knowledge of Danish ; but as it may be long before any translation is available, the British archaeologist, even though he may lack this equipment, is advised to buy the book for the sake of its illustrations. He can work his way through the technical descriptions (easy just because they are technical) with the help of Magnussen's small dictionary. The following brief analysis may help him when he feels tempted to go further.

*The last part of this review-analysis will be published in our June number.

The first part of volume I (pages 13 to 124) deals with the earlier stone age, i.e. from before 10,000 down to 3000 B.C.; the period before 10,000 in chapter I.

There are traces of three glacial periods in Denmark. Of the first little can be said, but of the second there are visible remains in the ' Hill Islands ' of the southwestern region : moraine formations which remained ice-free during the third period. In the intermediate time, between the second and third periods, climate was very temperate, the land level was higher ; there may even have been a land-bridge between England and Jutland. It is quite possible that Jutland was inhabited in this interval and also in the third Ice Age itself, but there are no finds to prove this. Except for this southwestern corner, all Denmark still lay under the ice until the end of the third Ice Age. There is a graphic description of the final melting of the ice and of the way in which it shaped and sculptured the landscape to its final form. This melting of the ice occupied several thousand years. At the end of this time the relations of land to sea were very different from those existent today. The land-level of south Denmark had risen ; that of north Denmark had sunk. The icy Yoldia Sea had now been formed. Climate was arctic with a midsummer temperature of 8 centigrade; vegetation and animal life were of a tundra character. The presence of man before 10,000 B.C. is not proved by positive evidence, but it is well remarked that the hunters of Meiendorf and Stellmoor near Hamburg were at the very door of Denmark in late Magdalenian days and may easily have penetrated further.

Chapter 2 takes us to 8000 B.C., the melting of the ice was followed by a short period of remarkable warmth, named after Allerød in north Zealand. Quickly returning cold, however, drove back trees and animals again to the milder regions, while the land reverted to tundra conditions. The mutual relations of land and sea continued to be unsettled, and were once violently upset by the breaking down of the Yoldia Sea, which forced itself an outlet to the ocean through middle Sweden. Of this a trace still remains in the modern lake Vänern. This change, however, was of short duration. A rise of the land closed in the Baltic again and turned it into a freshwater lake—the Ancylus Lake. What are now the Islands of Denmark formed a solid block with the mainland of Europe. The first certain evidence of man is a roughly shaped tanged arrow from Lyngby, datable to the Allerød period and comparable to flints found in the upper layers of Stellmoor. The complex of geographical, botanical and zoological relations at about 9000 B.C. can be studied in the table on page 124. At Lyngby and at each of six other sites was found an axe (fig. 3) fashioned of reindeer antlers. This Lyngby culture is compared with that of Ahrenburg and Stellmoor in the Hamburg region already mentioned, and represents a distinctly later development of the same School.

Chapter 3 treats of the Continental Period, 8000 to 5000 B.C. The great cold has gone forever. The evidence of the deposits shows a summer temperature of 10 to 12 degrees centigrade at the beginning and 16 to 17 centigrade at the end of the period. The abundant plant and animal life was the same as that of north Germany at the same time (compare again the chart on page 124). And now comes the forest : first the birch and aspen, then soon the fir followed by the hazel, and finally by the oak, elm, lime. The steps in the progress of the forest are traced by pollen analysis. The shape of southern Scandinavia in its relation to the Baltic and the Continent is shown in figure 11. It is most interesting to observe how much land, which was once inhabited, today lies beneath the sea. Peat containing pollen is often brought up from what is now deep water. Southern England, Holland, north Germany, Denmark and south Sweden were all joined in a compact mass.

Instead of the sporadic finds of earlier periods, we now have a consecutive series of dwelling-settlements with copious deposits of implements. The first is Klosterlund in central Jutland. There the progress in equipment is marked by the quantity of flints. Especially notable is the flint-axe necessary to cope with the new forest trees. In previous periods the only axe-like implement had been made of reindeer antlers, sometimes sharpened. Now there appear three kinds of axes, two of which are manufactured from cores and the other from a flake or slice (figs. 12a, b, c). Scrapers, knives and borers of flint are shown in fig. 14, while fig. 15 illustrates microliths. Contemporary with Klosterlund are two others : Moselund and Hadsund, with a similar inventory. Comparing these with the Ahrensburg culture of two or three thousand years earlier, the advance in flint-work is notable. In a peat bog on another site at this period was found a complete skeleton of an aurochs with the traces of wounds from flint arrows.

The next stage in the Continental Period, which is sometimes called ' Boreal ', is known by the finds from the settlements generally included under the one title of Maglemose. At Mullerup in western Zealand were two settlements, at Holmegaard in south Zealand two more, and at Lundby in the same region, still another pair. Zealand it appears is the principal region for the Maglemose culture, the types of which are illustrated in figs. 21 to 44 (note the early occurrence of amber). The distribution of sites is shown in a map, fig. 20, which marks no particular moment but includes several stages of the Continental Period. The map in fig. 47 illustrates another region, viz. : Jutland, remarkable for a new school of flint industry (figs. 49 to 52), and a culture which seems to indicate a different population from that of Zealand. This Gudenaa culture was very long lived and survived into the later stone age.

Chapter 4 covers from 5000 to 3000 B.C. This, called the ' Atlantic period ',

is marked by complete change in the relations of sea and land. Salt and fresh water have joined. In place of the Ancylus Lake we now have an inland salt-sea known as the Litorina, not so very unlike the modern Baltic. Sounds and Belts have appeared. Denmark has been split into islands (fig. 53). The change was not all accomplished in a moment. Some stages were probably catastrophic, but others certainly occupied many centuries. Four distinct risings of the sea can be noted between 4500 and 2500 B.C. Climate now changes and is no longer continental but oceanic in character, warm and damp. The change in climate brought change in the forest. The fir almost disappeared, being replaced by oak, elm and linden, with a wealth of smaller trees such as ash, rowan, cherry, willow, maple, with an underbrush of bushes and thorns. The two cultures noted in the previous chapter, Maglemose and Gudenaa (figs. 55, 56) continue.

Another culture now appears for the first time : it is the Ertebolle (map in fig. 54). This is practically limited to the coastal fringe as it then existed. The evidence of Ertebolle culture is found in the famous kitchen-middens (figs. 59–64) and some sites now submerged. Ertebolle implements of bone are interesting (fig. 71). The pottery in fig. 72 is not closely dated. Indeed the grading of dates is not possible within the long period (5000–2000 B.C.) part of which even overlaps into the Later Stone Age. D. RANDALL-MACIVER.

THE MASTABA OF MERERUKA. *By* the Sakkarah Expedition, Field Director PRENTICE DUELL. *Chicago : Oriental Institute Publications*, vols. 31 and 39, 1938 (*sic*). 2 *vols. pp.* XXV, 18 *and* 219 *plates.* 90 *dollars.*

A detailed publication of the Mastaba of Mereruka has long been desired by Egyptologists. The tomb was discovered by de Morgan in 1893 and described but briefly by Daressy ; here and there individual paintings were published. The Antiquities Department in Cairo improved matters ; a roof and several top-lights were provided, making it easily accessible to everyone who came to Sakkarah, and soon it was one of the most visited Mastabas of the district. It was all the more remarkable that no-one attempted a scientific publication. Breasted was the first to make the attempt, with the support of J. D. Rockefeller, jr., under the auspices of the Oriental Institute of Chicago. The tomb was completely surveyed and photographed in field-work lasting several years, under the direction of Duell, assisted by a staff of epigraphists, draughtsmen and photographers. The procedure used successfully by the Chicago expedition in Medinet Habu was employed also here : after the most careful epigraphical re-examination, the background of the photographs was removed by a chemical process, leaving only the line-drawing ; this method is much more exact than if the work were traced or drawn completely in freehand. In

the new publication likewise both photographs and line-drawings are generally shown together, so that really a very accurate picture is presented to the observer. The outstanding execution of the plates, including the coloured ones, rank this volume with the Medinet Habu and Karnak publications in the same series.

Mereruka—or Meri, to use his abbreviated name—was vizir under king Teti, the first king of the sixth dynasty, *c.* 2400 B.C. (not 2600, as stated in the publication). He built his tomb in the immediate neighbourhood of his master's pyramid, in front of its north side. Towards the end of the Old Kingdom the ' Mastaba ' type of tomb had already become very much less rigid ; instead of only a single room (the offering-room), the tombs now contained numerous chambers and corridors, like a dwelling-house. Mereruka added to his own tomb a special part for his wife, and further enlargements were afterwards made to provide for one of his sons. Thus the Mastaba contained above ground 21 rooms for Mereruka's own use (group A), six for his wife (group B), and five for his son (group C) ; with thirty-two rooms in all, the tomb of Mereruka must presumably have been the largest in Sakkarah. There have also been found below ground the burial chambers (empty) of Mereruka and his wife ; that of his son has not yet been discovered. Not all the rooms were decorated with reliefs ; in particular, the dark store-chambers remained without pictorial decoration. In the 219 plates of the publication are collected paintings from the various rooms forming group A only, together with some very beautiful, large, detailed photographs, and also, in outline only, the wall-paintings of the coffin-chamber. No indication is given whether a further volume will follow containing the material from groups B and C ; it is to be hoped that this will be done, for the complete collection would be most desirable, even if it involved some repetition.

The text is divided into a longish preface by the late Professor Breasted and his coadjutor T. G. Allen, and an objective introduction by Duell. The preface gives an excellent survey of the history of the Sakkarah tomb-field, which unfortunately has never been worked over systematically and as a whole. The introduction is somewhat short in view of the importance of the tomb, and it is occasionally obvious that the author has no exact training in Egyptology. Thus many old interpretations of the friezes show that he is not familar with the essence of Egyptian art : otherwise he could not state, for example, that the series of statues moves 'along the streets between the shops' in which the hand-workers go about their business. Such a spatial interpretation of a completely abstract conception ought no longer to be possible today. In particular, no mention is made of the texts ; it is to be hoped that they will be treated later by an expert Egyptologist in a separate volume. However, this unassuming introduction is meant principally to form an objective approach to the pictures, which are by far the most important part.

The plates are excellent, and will give pleasure to the non-specialist and stimulate the expert. Finally, a stylistic comparison is now made possible between the three great main tombs of Sakkarah—Ptah-hotep, Ti, and Mereruka. While the two older of these probably show with even greater purity the simple quiet style of the classical art of the Old Kingdom, in individual points and scenes the paintings from the tomb of Mereruka, which is rather later, pursue an independent course which in fact gives them their special charm. To such belong, for example, the representation of Mereruka with his wife, who is shown squatting on a divan playing the harp (pl. 95), or the attempts to represent the act of leading by the hand (pls. 104, 155), or the crossing of the arms upon the breast (pl. 9). Among the frequent scenes showing fishing on the marshes there are some wonderfully finished compositions (pls. 11, 19); individual figures (pl. 160), also heads in relief, reproduced in most beautiful detail (pls. 16, 151), show the surpassing heights reached by Egyptian relief even as early as the sixth dynasty. In this way the two beautiful volumes of plates supply rich material to the historian of art, and a precious feast to the eye of everyone who takes pleasure in the magnificent art of the pyramid era. We cannot be grateful enough to the Oriental Institute in Chicago for having published the paintings of the tomb of Mereruka in so exemplary a fashion. A. SCHARFF.

KHORSABAD. Part II: The Citadel and the Town. *By* GORDON LOUD *and* CHARLES B. ALTMAN. *University of Chicago, Oriental Institute Publications*, vol. 40. 1938. *pp.* 115 *and* 91 *plates.* 30 *dollars.*

Khorsabad, known in antiquity as Dur Sharrukin, was the residence of King Sargon of Assyria 722–705 B.C. The site was investigated by Botta and Price about the middle of the 19th century, and has now been examined afresh by the Oriental Institute of the University of Chicago, under the direction of G. Loud, with C. B. Altman as architect, partly under the general supervision of H. Frankfort, director of the Tell Asmar excavation. The second* volume of this great publication contains a very careful account, with special emphasis upon architectural matters, of the excavations in the town and on the Citadel, together with the temple of the god Nabu. In contrast to most of the Egyptian publications in this series, large space is allotted to the text, in particular to the architectural descriptions and the account of finds. Altman's plans and reconstructions give an impression of great reliability; the coloured reproductions of painted plaster-work, with their strident hues, grate somewhat upon the modern eye, but they certainly correspond with the reality. This extremely informative volume is well worthy of a place among the stately and distinguished publications, in all fields, of the Oriental Institute of Chicago. A. SCHARFF.

* Volume I was reviewed in ANTIQUITY, 1939, XIII, 246.

MOSTAGEDDA AND THE TASIAN CULTURE. British Museum Expedition* to Middle Egypt, First and Second Years (1928, 1929). *By* GUY BRUNTON. 1937.

In his expedition to Middle Egypt Mr Brunton had as his goal no royal tomb, no capital city, no impressive temple, no rich necropolis with entrancing paintings, but a provincial burial-ground, where probably none but poor folk ever lay. In 1924–5 he had already conducted excavations near Badari, on the east bank of the Nile south of Assiut, commissioned at the time by the British School of Archaeology in Egypt. He then decided to continue the investigation at his own expense, as it promised still further results, and the present volume shows that his courage reaped a fine reward.

Readers of ANTIQUITY will not need a very detailed account of the book, for they may be referred to Mr Brunton's own paper printed in volume III, 456–67. I may repeat briefly here that the object of investigation was a large cemetery, affording very valuable material from the earliest stage of the Egyptian neolithic period. It not only enabled us to know more of the second oldest stratum of prehistoric Egyptian culture, i.e. the Badari civilization, but, more important still, as is shown by the sub-title of the book, first made it possible for us to form a picture of upper Egypt in the earliest neolithic stage, with which we have only recently become acquainted. Previously our knowledge of this 'Tasian' culture was confined to a few isolated finds; now Mr Brunton has discovered some fifty graves belonging to it, practically all containing offerings and some with skeletons which could be examined. A coherent sketch of this culture also was given by the excavator in the paper already mentioned. There are still some interesting problems to be solved, notably the possible connexion of the beakers found there (which differ remarkably from the otherwise undecorated pottery and from the generally still simple ware of the Badari culture which followed it), with a German group of finds usually known as Michelsberg, hitherto dated substantially later. It is interesting that a clear differentiation can be established between the Tasian and the Badari skull-type.

Graves of all periods were discovered, beginning with the earliest culture of the Nile valley, and extending through the familiar prehistoric period and the age of the pyramid builders right down to Coptic times. These later periods are so well known that little new evidence is afforded by the graves, which are poor and often few in number. But in one direction Mostagedda yielded a surprise. In the period succeeding the fall of the Middle Kingdom, *c.* 1900 B.C., Nubians from the south invaded the Nile valley. The 'pan-graves' of these

* Although the expedition is thus described we are informed that the British Museum contributed nothing to the expedition except its patronage. The whole costs of excavation and of the publication of this report were borne by the author.—EDITOR.

invaders have long been known, although only a few of their cemeteries have been found. Here, in Middle Egypt, Mr Brunton has now established the largest burial-ground of the kind so far discovered. The clay ware of these barbarians, like their whole culture, is markedly divergent from the fine vessels of the historical Egyptians. The dating of this invasion is helped by the recent discovery of an axe, on which is preserved the name of one of the kings hitherto only incompletely ascertained, one of those who ruled in short successive reigns not very long after the break-up of the central royal power. Unfortunately the photograph of this fragment is so small that the name can only be deciphered with difficulty. Apart from this one point, however, one can feel nothing but the highest admiration for the method of excavation and the manner in which its results are presented.

Today, if we look at older publications, they confirm us in our belief that precisely those questions which now seem to us decisive were then passed over as of no significance. Certainly we cannot tell what future scholars will regard as important, but a book of this sort, forming such an exemplary publication of material, gives a pleasant confidence that even the distant inquirer of the future will find all his questions answered. But this is not all ; it is at least as important that our inquirer will be able to discover everything in the text : and here he will find an index and a lucid and consistent arrangement of the material, which is doubly valuable just because the excavations have yielded finds from all periods. In conclusion, mention must be made of the cooperation of two other scholars, Mr T. Midgley (of the Chadwick Museum, Bolton) in the section dealing with cloth and matting, and Dr G. M. Morant in connexion with prehistoric skulls and their bearing on Egyptian racial problems. All animal remains, all plants, contents of vessels, matters of anatomical interest in connexion with the skeletons, have been investigated by experts and treated with such detail as their significance warrants. In spite of this thorough manner of treatment, the book is written in good style and will offer something to everyone who is at all interested in early Egyptian culture. HELLMUT BRUNNER.

THE CULL CHINESE BRONZES. *By* PERCEVAL YETTS. *University of London, Courtauld Institute of Art*, 1939. *pp.* 197, 44 *figures and* 35 *plates. Price not stated.*

In his Catalogue of the Chinese Bronzes of the Eumorfopoulos Collection (1929–30), the greater part now in the British and the Victoria and Albert Museums, Professor Yetts discussed for the first time fully and seriously (in a European language) a number of questions, dealing especially with the investigation of Chinese ritual bronzes, mirrors, bells and weapons. The subjects

of the three chapters of the first volume of the Catalogue are Inscriptions, Technique, Classes and Uses. In his new work on the Cull Collection the author is again mainly occupied with inscriptions and classes. Once more we realize what enormous difficulties have to be overcome in the course of such work, in order to obtain a sure base upon which to build. The translation of the archaic inscriptions can, in many ways, be compared to the solution of a puzzle, and research workers hold widely divergent views as to their result. It is often difficult to produce reliable data for the nomenclature and uses of the ritual bronzes, and it may be suggested that where definite knowledge is lacking, a conventional definition should be made.

In the Eumorfopoulos Catalogue, there is scarcely a single early bronze that the author dates with certainty. The great majority of attributions are given as ' probable ' or ' doubtful '. Attributions to the Shang-Yin dynasty are completely lacking. In the Cull Catalogue nearly every one of the thirty objects dealt with is chronologically dated without any qualification, though the period to which it is assigned may be of considerable length. Here is evidence of the enormous progress that research in this field has made during the last decade. Both the author and the Swedish School have greatly contributed to this success, the excavations at Anyang providing an impetus from the East, while in the West the Stockholm Exhibition of Chinese Bronzes in 1933 was of prime importance. Then followed the Exhibitions in Paris (1934), London (1935–36) and New York (1938), all of them memorable events and milestones on the road to knowledge.

Professor Yetts sets forth the following classification of archaic bronzes up to the time of the Ch'in dynasty (221–207 B.C.) : ' The First Phase includes bronzes displaying the standards established in the Shang-Yin period, and it lasted from earliest times to the tenth century B.C. The Second Phase includes the style distinctive of Chou culture, and it lasted from the tenth century to dates which varied in different parts of the country. The Third Phase corresponds generally to what is known as the Ch'in or Huai style '. Professor Karlgren, the indefatigable Swedish scholar, gives the following division in his latest publication (Oestasiatiska Samlingarna, Bulletin no. 9, 1937, p. 5). ' Archaic period : Yin, prior to 1122 B.C.; Yin-Chou 1122 to circa 950 B.C.; Middle Chou : circa 950 to circa 650 B.C. (with occasional extensions considerably later); Huai: circa 650 to circa 200 B.C.' It will be seen that both scholars have arrived at practically the same conclusions. The division which the Chinese give in their catalogue of Chinese Government Exhibits for the International Exhibition of Chinese Art in London, also shows no essential differences. If the Chinese make use of certain historical periods for naming their divisions, they are merely following a European practice, in which historical divisions do

not correspond precisely with the artistic evolution. Professor Yetts' classification has the advantage of greater simplicity and the widest scope ; periods in art can never be exactly divided. And it must not be forgotten on what slender foundations all our knowledge of early Chinese times is built.

In the Cull Catalogue must be noted not only the progress with regard to the dating of the bronzes, but also the still more difficult matter of the interpretation of the significance of their decoration. For example, the author, describing a beautiful mirror of the Han time (no. 28), a type which up to the present has been provisionally designated as a T L V mirror (owing to certain similarities of details of its ornament to the letters T L V), gives a very convincing interpretation of nearly the whole of the extremely complicated decoration. This takes up 49 pages, that is to say, more than a quarter the whole book. No. 28 is then, in short, 'a compendium of cosmology, and, as may be gathered from the inscription, it is a compendium of astrology as well ' (p. 165). Professor Yetts suggests the designation of ' sun-dial ' for such mirrors, or if they are as comprehensive as no. 28, then ' sun-dial and cosmic mirror '. We are therefore in the fortunate position of being able to discard the former rather fanciful designation. The author also discusses fully one of the well known ' beast and grapes ' mirrors. He discusses the date—not Han but T'ang ; the ornamentation, due to western influence—and even gives a reproduction of a detail of the Syrian Mshatta Palace façade, in the Kaiser Friedrich Museum in Berlin, in order to demonstrate clearly the western influence. The ' beast and grapes ' mirrors are evidently another example of the surprisingly strong influence of the art of Sassanid Persia on T'ang art, which combined with Indian influences was so strong that it can be said that Chinese art was never so un-Chinese as at this period. It would have been welcome if the author had entered still more fully into the symbolism of the archaic bronzes and defined his attitude to the learned writings of Professor Carl Hentze, the Belgian sinologue, which have appeared during the last few years. Here, in spite of some exaggeration, it seems that new paths have been opened, which may lead to an understanding of the decoration of early Chinese bronzes, in which, doubtless, every motive bore a symbolical or magical significance.

Although the specimens in the Cull Collection cannot be compared with the Eumorfopoulos bronzes, either in quality or in number, it contains, among others, fourteen ritual vessels of which at least half a dozen are of the utmost importance. Most of the works belong to the First Phase. The Second Phase is not represented. The author gives a careful description of each object. The wine container, *yu* no. 3, a work of the First Phase, and the two vessels *hu* no. 12, which were used for similar purposes, works of the Third Phase, appear to him of most importance, both from the point of view of style and on account of the

inscriptions they bear. With regard to the *hu* which the author has already published in the *Burlington Magazine* (1937) he writes : ' Students of Chinese bronzes seek especially to authenticate the beginnings of the Third Phase. I claim for no. 12 that it provides a new criterion ; it has full measure of the group's characteristics, and allusions in its inscriptions fix not only the oldest definite date so far known for any member of the group, but indications of locality as well ' (p. 53). ' In conclusion, the date 482 B.C. or soon afterwards is almost certain, and the Chin State is the probable locality ' (p. 75). Perhaps it is of less importance whether these two *hu* supply ' the oldest definite date ' for works of the late Chou or Huai style (*c.* 7th–3rd century B.C.) or whether the famous so-called *piao* bells are older (Karlgren insists on the date 550 B.C. for the bells, Oestasiatiska Samlingarna Bulletin no. 9, p. 104; Yetts pleads for 398 B.C., p. 73) than the fact that they both offer a further proof that this characteristic style really goes back to the fifth century or even earlier.

Besides descriptions and explanations of the objects and penetrating analyses and interpretations of the inscriptions, we find in the text much of fundamental interest concerning Chinese ritual bronzes and on early Chinese art and culture.

In the preface the author announces a new and comprehensive work, *Ritual Bronzes of Ancient China*, the appearance of which will be looked forward to with eagerness, and in which assuredly many of these and other subjects will be dealt with still more fully. If the Chinese themselves consider the archaic bronzes in the first place as documents of their history and therefore pay the greatest attention to the inscriptions—Chinese literature on this subject is tremendous—the Westerner, on the other hand, has been accustomed to regard the older bronzes more as monuments of a great art-period. Above all, he desires to understand the origin, the development and the significance of each specific form. He wants to know how far the enthusiasm of the Sung time (960–1279) for the ancient bronzes led to the copying of the earlier material. Are we sure that we are not often, perhaps more often than we suppose, in a similar position to, say Winckelmann, the enthusiastic admirer of antique art, who actually had seen for the most part only Roman copies of Greek originals.

A word of appreciation must be added regarding the excellent make-up of the Catalogue, and the bibliography. The typography is especially good. The end-papers are decorated with ornamental motives of the Third Phase, by the author himself. All Chinese words and titles are given in Chinese characters, and many inscriptions and details, most carefully copied, illustrate the text. The bibliography comprises 132 references and represents almost the whole of the literature on the subject, the Chinese references by far predominating.

This volume by Professor Yetts is undoubtedly a valuable contribution to the arduous task of investigating the unique bronze art of early China.

WILLIAM COHN.

DEMIRCI-HÜYÜK, EINE VORGESCHICHTLICHE SIEDLUNG AN DER PHRYGISCH-BITHYNISCHEN GRENZE. *By* KURT BITTEL *and* HEINZ OTTO. *Archäologisches Institut des deutschen Reiches, Berlin,* 1939. *pp.* 35 *and* 15 *plates.*

Many who have travelled in Anatolia will recollect the excitement which they experienced when mounting, by rail or road, from the fertile coastal regions to the steppes of the interior. The transition, everywhere striking, is particularly abrupt on the route, used in ancient as in modern times, from Mudanya to Ankara and thence to Bogazköy, in other words, from the Sea of Marmora to the present-day capital and its Hittite predecessor. Dr Bittel, journeying that way in 1936 with Dr Dehn, used the opportunity to good advantage, for he not only identified many sites hitherto unknown, but also made certain original observations on the manner in which their character changed with their environment.

It is not surprising that a geographical boundary as strongly marked as the one in question should have become a political frontier in the thirteenth century, or served to define provinces in the Roman period, or stemmed the diffusion of Hellenic culture at a still earlier date. To what extent it modified the spread of prehistoric civilizations we cannot say : at any rate, our authors have noted its correspondence with certain fundamental changes in the settlement-types. On the uplands, buried towns and villages assume the form of conical mounds—their Turkish name is hüyük—and they are plentiful and conspicuous. On the coasts, with the exception of the region round the Dardanelles, such mounds are rare ; the habitations have left small traces, and two reasons are suggested for this. The first is that the houses there had been made of wood, which is perishable (or, I would add, of stone, which can be removed) ; the second is that lands within reach of the sea are vulnerable, and their towns short-lived. Above, on the steppes, mud-brick provided building material ; it accumulated rapidly, and a more settled population was able to occupy the same spot again and again. All this is convincing ; nor is it affected by the somewhat revolutionary theory advanced on p. 1 (note 1), that the central parts of Turkey were scarcely more afforested in antiquity than they are today.

Demirci-Hüyük itself is situated on the plateau, west of Eski Sehir (Dorylaion), near which our road joins one leading to the south ; east of Bozüyük, the previous type-site for the district; and within a short distance of numerous other mounds. As Bozüyük was imperfectly investigated over fifty

years ago, the value of a new standard is obvious, and the evidence provided by Demirci-Hüyük most welcome. Though the strata which the excavators distinguished with great accuracy do not show marked changes of culture, covering only the period between 3000 or a little earlier and 2300 B.C., they have yielded a fine series of pottery and a useful quantity of statuettes and implements. These enable us to estimate the relation of the settlement and its neighbours to others, so that we can safely regard it as connected with the west Anatolian civilization more closely than with the eastern, while possessing just that degree of individuality which we should expect. The most interesting finds are, perhaps, the fragments of spouted vases of the ' tea-pot ' class, hitherto associated with Hittite wares and now present in a third millennium context. Can they be one of the missing links between Turkey and Persia ? It repays to compare pl. 7, 5 with some of the examples from Shah Tepe. The detection of foreign contacts is, however, rendered difficult by the absence of metal in any form.

As the campaigns were short, no buildings of note were uncovered. These may be cleared at a later date, since digging was conscientiously and discreetly confined to the section exposed by the modern road and to a small area in the uppermost level.

The discovery of battle-axes in the adjacent hüyük, Aharköy, gives Dr Bittel the opportunity of discussing the diffusion of these weapons in the Near and Middle East, and of lodging a protest against the misguided theory that they mark a nordic immigration at the end of the third millennium. To such a theory they can lend no support, for specimens from Thermi, Tell Agrab, and Kish are earlier than 2600 B.C., and the type was thoroughly at home throughout Anatolia.

The section on battle-axes forms the epilogue to a book short, but from many points of view interesting. I have been particularly impressed by the author's recommendation that workers in Turkey should turn their attention to topography now that the outlines of a chronological scheme have been established. This verdict has great weight, since it comes from authorities who have themselves contributed to our knowledge of both departments. W. LAMB.

DIE BÄUERLICHE SIEDLUNG DES RAVENSBERGER LANDES BIS 1770. (Arbeiten des Geographischen Kommission im Provinzialinstitut für Westfälische Landes- und Volkskunde, 1). *By* HANS RIEPENHAUSEN. *Münster in Westfalen*, 1938. *pp.* 140 *and* 3 *maps.* RM 7.50.

This work is the fruit of an exhaustive investigation into the *Siedlungsgechichte* of an area, some 15 miles by 22 miles in extent, in northeast Westphalia. The distribution-map of different types of settlement in Westphalia was sketched

by Martiny in an important contribution to the *Forschungen zur deutschen Landes- u. Volkskunde* some thirteen years ago, and the present work illustrates Martiny's main conclusions without modifying them except in detail. There is nevertheless a good deal that is of technical interest to the student of English agricultural history in a work of this kind for too little attention is paid in this country to the discipline of local history, on the successful synthesis of which all well-founded generalization on the nature of early English agricultural systems and types of settlement must ultimately depend.

Herr Riepenhausen's materials are the *Kataster* of 1770 and the *Urbar* of 1550. He has nothing to say about the possible existence of archaeological evidence of field-systems in his area, or of the use to which medieval charters and extents might be put if related to the later materials. The medieval scene is in fact reconstructed from modern materials, chiefly by means of an analysis of place-names and of the distribution of types of settlement, both of which have for the purpose of this enquiry been subjected to a rough chronological scheme. The limitations of these methods are obvious, but it is interesting to see how much can still be done with Meitzen's methods in Meitzen's own country. E.B.

HUDŪD AL-'ĀLAM, a Persian Geography, 372 A.H. (A.D. 982). Translated and explained by V. MINORSKY. 12 *maps*. *Oxford University Press* for E. J. W. Gibb Memorial Series, 1937. 25*s*.

The story attaching to the precious work of which the present volume is a translation is indeed romantic. In 1892 a Russian orientalist named Tumansky while in Turkestan was given an old manuscript which contained four treatises. On examination the first treatise turned out to be the *Hudūd-al-'Ālam*, i.e. ' the Regions of the World ', which was compiled in A.D. 982. Though use was made of photographs and transcripts of this manuscript the text was never published till 1930, when V. V. Barthold published a reproduction with an introduction and index. Barthold died in the following year, and thus never carried out his intention of publishing an annotated translation. This work has now been most adequately performed by Professor V. Minorsky and published by the Gibb Memorial Trustees. It certainly could not have fallen into better hands, and the learned Professor has placed all students of Islamic history and geography under a lasting obligation. The importance of the text itself cannot be over-estimated, seeing that it is one of the earliest Muslim geographies that have been found, and was till its discovery quite unknown.

Minorsky's edition begins with a translation of Barthold's important introduction ; this is followed by a closely literal translation in large type of 100 pages of the whole text which comprises 61 sections ; then comes Minorsky's

elaborate Commentary, which occupies 300 pages in small type; and finally there is an index covering 40 pages.

I have given these figures in order to indicate the comprehensiveness of the Commentary, which in conjunction with the index contributes a veritable encyclopædia of Islamic geography. Seeing that the *Hudūd-al-'Ālam* deals with the whole of Asia and parts of Africa and Europe, one can imagine the amount of research which was required in order to identify all the place-names and verify their descriptions. Professor Minorsky has spared no pains to make his Commentary as complete as possible, and has consulted for this purpose the leading living authorities on each country, quite apart from his study of all available published material. The difficulties of his task were increased by the circumstance that many of the places named have totally disappeared or have received new names.

It is impossible to quote from this Commentary, but let it suffice to say that this volume must in future find its place side by side with the Encyclopædia of Islam, to which it forms not merely a necessary pendant, but also an invaluable supplement. Professor Minorsky deserves the warmest congratulation on his masterly performance, and the Gibb Memorial Trustees may well be proud of having added this outstanding volume to their valuable publications. E. Denison Ross.

ALTAMIRA: a note upon the palaeolithic paintings in the Cave of Altamira, near Santillane del Mar in the Spanish province of Santander, with a collotype in colour reproducing all the principal paintings. *By* W. H. Riddell. *Oliver & Boyd, 98 Gt. Russell Street, W.C.* 1938. *pp.* 50. 3*s* 6*d.*

Mr Riddell is perhaps too modest when he tells us that he is no prehistorian. He has at any rate other qualifications for acting as an interpreter of the work of the hunter-artists. He is himself an artist and a hunter—an expert and widely experienced hunter, and an equally expert painter of the animals he has hunted and watched. He has also watched his uncivilized companions of the chase, and knows how savages think and see. In fact he has a first-hand knowledge of his subject; and this has enabled him to produce an unusually entertaining little book. Folded in a pocket at the end is a very careful coloured drawing of the whole Altamira ceiling, which shows the polychromes in their proportional relationship to each other and on a scale sufficient to enable one easily to follow what he has to say about the subject and treatment of each design. After discussing how and why they were painted, he goes on to consider ways and means of keeping Upper Palaeolithic larders supplied, explaining why cold conditions were favourable, and why a softer climate meant a harder life. The book is short; but there is a lot in it. A.B.

DIE VOGELFIBELN DER GERMANISCHEN VÖLKERWANDERUNGZEIT. *By* GERTRUD THIRY. *Bonn, Ludwig Röhrscheid Verlag*, 1938. *pp.* 144, 35 *plates*, 7 *maps* 23.50 RM.

This is a very competent and thorough survey of the Teutonic jewelled ' bird-brooch ' from the ' feathered ' cloisonné type of *c.* A.D. 400 to the debased variants of *c.* 600. The author's classification is in every respect satisfactory, and her work will be welcomed gratefully not only by students of the Dark Ages in western Europe, but by all museum-curators who have to date and label brooches in this extensive group. The distribution-maps are the only disappointing feature in a book which, apart from these untidy and confusing sketches, is a really notable example of persistent and industrious research into a cleverly isolated problem. The author is certainly an archaeologist whose future work will command an attentive respect. T. D. KENDRICK.

THE JEMEZ PUEBLO OF UNSHAGI, NEW MEXICO, with notes on the earlier excavations at 'Amoxiumqua' and Giusewa. *By* PAUL REITER, *University of New Mexico, Santa Fe*, 1938. 2 *v.*, *pp.* 211, 23 *plates*. 3 dollars.

This monograph deals not only with the Pueblo Unshagi proper, but also with the area known as Jemez province in the northwestern part of the State of New Mexico. It is a region of high mesas, forested valleys and mountain peaks. The only modern Jemez site in that area is Walatowa ; Unshagi seems to have been abandoned about 1628, after a residence of 250 years.

The author has used every method available for his reconstruction of Jemez history ; though he mainly uses archaeology as a result of very thorough excavation work. He does not overlook the traditional or historical evidence, nor such auxiliary technics as ' dendrochronology ', the determination of chronology from tree-rings. The book gives an interesting sketch of the material culture and of the evolution of a native society in the Pueblo area.

JACQUES SOUSTELLE.

THE SWEDISH MESSENIA EXPEDITION. *By* M. NATAN VALMIN. *Oxford University Press*, 1938. *pp.* XV, 484, 37 *plates*, 7 *plans and* 100 *text-figures*. £4 4*s*.

In this work are described the excavations conducted by the Swedish Messenian Expedition at Malthi, Hagios Floros and Korone.

Part I deals with the prehistoric site of Malthi (of which the successive settlements range from Late Neolithic to Late Helladic III), the burials, the pottery, miscellaneous finds, including a detailed examination of weights and script signs, followed by conclusions, an appendix containing analyses of

metals and ore and a second appendix describing a deposit of Byzantine coins. This account of the prehistoric site occupies 415 pages and forms the major part of the book.

Part II (pp. 419–65) is concerned with the excavation of a small sanctuary at Hagios Floros (which lies east of Ithome) where, as was established by two inscriptions, there existed a cult of the river-god Pamīsos, and where, as the character of the votive offerings showed, children were brought for healing at the springs. The sanctuary flourished from the Late Archaic to the Roman Imperial Age.

Part III (pp. 469–475) describes a mosaic floor lying three miles north of Korone, datable to the time of Nero.

The prehistoric site of Malthi is outstanding because of the completeness with which the Middle and Late Helladic settlements were found to have been preserved, the plans of each being recoverable and the walls remaining standing in many cases to several courses. A good number of houses belonging to the two earlier settlements also were found. These fixed remains being accompanied by a reliable stratification of pottery, small objects, etc., a continuous and clear record is provided of the life of a small town, provincial but not by any means in a backwater. In respect of completeness, among excavated and published sites in Greece only Gournia and Thermi are comparable; the latter, however, belongs rather to the Troadic–Anatolian sphere of civilization.

Almost every aspect of archaeology is in fact illuminated by the fresh material at Malthi; daily life and customs by the house-plans (it is to be noted that apsidal houses are characteristic of the Late Neolithic to Early Helladic I phase as well as of the Middle Helladic), by objects of daily use (perforated axes are here found in Early Helladic houses), a smith's forge (the manufacture of iron objects before the end of the Mycenaean Age will be noted), a series of burials and a rudimentary grave-circle; the potter's art by a fairly normal pottery-series (note however that the forms of Minyan are anticipated in the Late Neolithic period, that there are no ringed Minyan goblet stems, that the sequence is Minyan (MH I), Argive Minyan (MH II), grey Minyan (MH III), yellow Minyan (MH III–LH I) and that the latter persists to the end of the LH III period, that matt-paint has three phases, lustrous, thick and again lustrous, that many LH III kylikes have swollen stems, a provincial peculiarity (Ithaca, Cephallenia, Cyprus) that stirrup-vases and the Granary Class are very rare, that autochthonous pottery, termed unaccountably ' Adriatic ' by the author, persists from first to last side by side with the standard series, influencing and being influenced by it). Finally light is thrown on ethnological questions by the evidence for static or transitory elements in the population supplied by changes in the house-plans, pottery, signs of destruction and the like.

Thus most of the familiar problems of Aegean prehistory are affected by the new material from Malthi, and it is evident that students of the subject must beg or borrow (for few will be able to buy) this essential book.

Though the book is clearly the product of most careful observation and recording, a few criticisms suggest themselves.

In the first place, though we cannot be too grateful to the author for presenting his work in English, it is to be regretted, and, in view of the assistance which is claimed in the final paragraph of the Introduction, surprising that the English is in general faulty, sometimes even to the point of being unintelligible.

Secondly, the descriptions are intolerably long with the result that the book is materially cumbrous and intellectually fatiguing. Given the excellent stone for stone plan (1) there is no need for the laborious recording of details which should, if considered indispensable, be confined, in smaller type, to an appendix. Thus bulk and price could have been reduced.

Thirdly, the plates with some exceptions, notably the coloured ones, are not really satisfactory. In the views, the shadows are too black and lack luminosity; in the case of vases, the surface-texture might have been better reproduced, and the free-hand reconstructions from fragments are ill-drawn and untidy; in the case of small objects many of the illustrations are too small to have any value; the disparity of scale of objects on the same plate, even when measurements are given in the text, is trying (in some case scale is not given either in plate or text), and the mixing of vases of different periods might have been avoided. Finally, captions at the foot of each plate with references to the text would have been of great assistance. W. A. HEURTLEY.

STUDIES IN EARLY CHINESE CULTURE. *By* HERLEE GLESSNER CREEL. First Series. *Kegan Paul, Trench, Trubner*, 1938. *pp.* XXII, 266. 15*s.*

In his book, *The Birth of China*, published in 1936, Mr Creel says: 'This book is not written for specialists. Specialists who desire full proof and meticulous documentation for the material treated in this book will find them in my technical work, *Studies in Early Chinese Culture*, of which the first volume is completed and now in process of publication'. It is therefore from this point of view that we have to consider the *Studies*. They introduce us, so to say, into the workshop of the author, but they practically go over the same ground as the former work. They are however, carried out on a larger scale. Numerous questions are raised therein, controversy plays a not inconsiderable part, and there are many lengthy annotations. At the same time, the Chou period has been relegated into the background, whereas the so-called prehistoric time is treated more elaborately. Although the author discusses all problems at length,

there remains much of the impetuous American vigour which distinguished his former book. He almost entreats the reader to believe him and he emphasizes again and again the painstaking labour involved in completing his task. We could nearly imagine that all the research work and all the criticism on this subject have hardly ever been seriously dealt with before.

The first chapter treats of the materials available for the study of the history and the culture of the Shang period (' Traditional Chronology, 1765–1122 '). The great progress which has been made in research work regarding China, during the last two decades, is due to the fact that now thousands of well compiled ' oracle bones ' and numerous sacrificial bronze vessels, ' excavated under scientific conditions ', provide valuable contemporary data. The chapter is divided into three sections : inscribed bones, excavations, and books of the Shang period. The author discusses in detail the extensive and important Chinese literature on oracle-bones and he gives a full report of the excavations at Anyang, the Shang capital, at which he was present on various occasions. Naturally, Mr Creel, as a sinologue, dwells longest upon the literary sources. He arrives at the conclusion that perhaps only the Shang Sung of the Shih Ching can be considered a real Shang production.

The second chapter investigates the evidence we have of the oldest Chinese dynasty, the Hsia dynasty (' Traditional Chronology, 2205–1766 '). Mr Creel states : . . . ' not pure fiction ', but ' there is no reference in the bone inscriptions to a Hsia state or dynasty. Nor is the character found in the original text of the I Ching, nor in early Chou bronze inscriptions '.

The third chapter describes the race, origin and the area in which the Shang culture flourished. The assumption that the Shang people belong to the same Mongoloid racial stock as the Neolithic inhabitants of North China Mr Creel considers substantiated, and he also claims to trace, more or less clearly, connexions between the Shang and the Neolithic culture. If these opinions could stand the test of criticism, they would be of outstanding importance.

The section treating of ' The Origins of the Shang Culture ' is the most extensive and suggestive of the whole work. The excavations by Andersson which were followed by those of the Chinese National Research Institute, have brought an enormous amount of material to light. Mr Creel holds the Li tripod to be a peculiar characteristic of the entire northeastern culture area and he goes thoroughly into all questions concerning this vessel, of which similar types are still made in present-day China.

The final sections are devoted to early Chinese art, especially to the bronzes. Instructive as they are, they would certainly have worn a somewhat different aspect today in view of the considerable number of newly published works which were at that time unknown to the author.

It must be unreservedly appreciated that the problems of early China are exhaustively examined for the first time in this book, and we have to admire the efforts of the author. But it must not be forgotten that many of his conclusions are still more or less hypothetical and await final corroboration.

When one considers the formidable six-page bibliography, which according to the author is not even a complete list of the books he used, the overwhelming majority of which is Chinese, one fully realises the great difficulties which the multiplicity of ideas on the most important problems still offer. The literature in European languages seems to be somewhat neglected by the author, who holds the research work achieved by Chinese scholars in very high estimation. It is however likely that some of the western publications were not at his disposal. In any case the works of Bachhofer, Hentze, Karlgren, Loehr, Maspero, and Yetts ought to have been taken into greater consideration today.

WILLIAM COHN.

ATHENIAN TRIBUTE LISTS. *By* B. D. MERITT, H. T. WADE-GERY *and* M. F. MCGREGOR. Vol. I, *pp.* XXXII, 605, 25 *plates and* 192 *text-figs.* For the American School of Classical Studies at Athens. *Harvard University Press, Cambridge, Mass.*, 1939. 15 *dollars.*

In the process by which the Confederacy of Delos was gradually transformed into an Empire controlled by Athens an event of momentous importance took place in the year 454–3 B.C., when, barely twenty-five years after its inception, the Treasury and funds of the Confederacy were removed, for greater security and convenience of administration, from Delos to Athens. Henceforward they were controlled by Athenian officials and placed under the protection of the goddess Athena, and as a special offering to their protector a tithe, or quota, of $\frac{1}{60}$ (= 1 *mina per talent*) was set aside every year from the tribute paid by each of the members. Details of this quota were recorded annually by the Treasurers from 454–3 onwards on marble stelai erected on the Acropolis, and it is primarily with these quota-lists that the present volume deals.

The history of their discovery and identification begins about a century ago, when numerous fragments came to light during the task of clearing the Acropolis of later buildings and accumulated rubbish, and their numbers have steadily grown as the result of more recent excavation, coupled with intensive research. Thus the reconstruction of the original form and contents of these stelai, and the more exact interpretation of the historical evidence which they yield, represent a continuous advance towards a fuller understanding of the history and organization of the Athenian Empire. Historians have long since realized the unique value of this contemporary evidence, and it is instructive to study the progress made since the sceptical pronouncements of Grote (*History*

of Greece, 1872, IV, 492, *e.g.*, that the hypotheses of Boeckh in the second edition of his *Public Economy* ' appear to me more ingenious than convincing ', or ' as to the amount of tribute . . nothing certain appears to me obtainable from these inscriptions ', though, had the lists been complete ' we should have acquired important and authentic information respecting the Athenian Tribute-system '). Grote, it must be admitted, like Jowett a few years later, in the introduction to his Thucydides, was sadly out of touch with, not to say suspicious of, the progress of German scholarship in this field. More recent progress may be illustrated by a glance at the first stele, originally an immense monolithic block of marble, nearly 11 feet high and over 3 feet 6 inches wide, and 1 foot 3 inches thick, on which were engraved the quota of the first fifteen years after the transference to Athens. In 1873 Kirchhoff was able to attribute 120 fragments to it (*Inscriptiones Graecae*, vol. I), but in the latest reconstruction by Meritt and his colleagues there are no less than 180, including several which have unfortunately disappeared since they were first copied a century ago. In fact the documentation of these lost fragments is not the least valuable of the services to learning afforded in the detailed inventory of all the fragments which is given in the first chapter. Again, it is due to recent discoveries by Wade-Gery that we now know, firstly, that the narrow right-hand face contained at the top a summation of the first year's quota (a practice not again repeated), and not, as hitherto supposed, a heading in abnormal form for the list of the seventh year ; and secondly, that one year's quota has been omitted altogether, since the short list of entries previously ascribed to year VII is now seen to be an overflow from the list of year II on the broad obverse face. Meritt, moreover, has established that the missing year must have been 449–8, and that the hiatus must be due to the conclusion of the Peace of Kallias with Persia, which might indeed, had Athens been so minded, have justified the dissolution of the Confederacy. As another example of progress we may note the stages in the reconstruction of the third stele (430–29), the earliest survivor of those which contain the record of one year only. The dates of publication of its eight fragments are 1835, 1853, 1896 (2), 1908, 1909, 1910, and 1939, the last having come to light, like several others which belong to the series, in the American excavations of the Athenian Agora.

Besides all the known fragments of the quota-lists this volume contains reproductions and transcripts of all the other Attic inscriptions relating directly or indirectly to the assessment and collection of tribute from the Confederacy. Some of these have already been restored and discussed in separate monographs, such as the famous Assessment-decree of 425–4, whereby the total sum demanded was increased—perhaps fully three-fold—to a total of nearly 1500 Talents, to meet the growing costs of the Peloponnesian War ; and the two decrees relating

to methods of collection, etc., discussed in Meritt's recent *Documents on Athenian Tribute*. There is also a valuable chapter of *Testimonia*, generously printed in full, comprising pertinent extracts from the Greek historians and orators, from Aristophanes, and others (note particularly the new restorations proposed in the papyrus-fragment known as *Anonymus Argentinensis*, on p. 572), as well as from other inscriptions relating more generally to Athenian imperial affairs. The Gazetteer (ch. IX), comprising the names of all the states known to have been assessed for tribute at any date in the history of the Confederacy, is a contribution of quite outstanding value to the study not only of the geography of the Athenian empire, but of any aspect of the classical history or geography of the regions which it embraced.

We are promised, and will eagerly await, a full historical commentary on these documents, in a second volume. Meanwhile we may unhesitatingly acknowledge that the material contained in the first, and the manner of its presentation, make it by itself a contribution of inestimable value for the study of the most interesting and instructive period in the history of Athens. When the authors say (p. XI) ' This book makes no pretense (sic) to being a final publication ' they are only reminding us that scientific investigation knows no finality, for it is safe to affirm that any future discoveries in this field will not seriously modify the conclusions which they have already reached, and that they have erected, by their industry and acumen, a framework into which such discoveries will fit accurately and convincingly.

A word of recognition is emphatically due to the printers and publishers of this stately volume, and a tribute of gratitude is surely to be paid to the enlightened patrons of classical research in the United States, whose generosity, fittingly acknowledged in the introduction, has enabled Meritt and his fellow-workers to carry out the prolonged investigations which are so splendidly presented in its pages. And this brings us to express, in conclusion, the earnest wish that it may somehow prove possible to reprint this and its companion volume in a less splendid form, and thus put the work within the reach of scholars—old and young alike—who simply cannot afford to purchase it at the present price.

A. M. WOODWARD.

RACE, A STUDY IN MODERN SUPERSTITION. *By* JACQUES BARZUN. *Methuen*, 1938. *pp.* 353. 10*s* 6*d.*

Mr Barzun's very timely book on the subject of race, having created considerable stir in America, now appears in its English edition. In it Mr Barzun first defines his problem, which is to determine what is meant by the word *race*, as historically and currently used. Then he traces the thread of social and political thought on the subject of race from the Greeks to Gobineau, and from

Gobineau to Hitler. Finally he draws his own conclusions as to whether or not races exist, and explains why this subject has given rise to so many absurdities and so much confusion.

In reference to the existence or non-existence of races, a few quotations will serve to define the author's position. ' If sense and logic can lead to any truth, not a single system of race classification can be true ' (p. 11). ' It may sound as if this . . . were a denial of the obvious fact that people who belong to the same family, nation, climate, class, or " race " have a tendency to think alike, even to look alike. No such denial is asserted or implied anywhere in this book. What is asserted and implied is that *these tendencies to think and look alike, if they exist, must be proved* ' (p. 22). ' Even granting, for the sake of argument, the existence of racial differences in physique. . . .' (p. 130). ' Whether any one race theory be true or not, the fact that there exists no consensus of opinion about race terminology, its application, or its proofs, at once puts race thinking outside the pale of logical and scientific verification ' (p. 278).

In other words, races may exist, but Mr Barzun refuses to take cognizance of them until the science of physical anthropology has been advanced to the point of completion. Physical anthropologists, besides disagreeing so widely as to render their results useless, are for the most part dishonest as well. ' *Duplicity of Motives* . . . race theories are motivated by irrelevant interests and not by curiosity, which in turn explains the slovenliness, inaccuracy, and illogicalness of *virtually* every system ' (p. 281).

There are two possible explanations for Mr Barzun's intolerance which will occur to any reader who, like the unfortunate reviewer, happens to pursue that stigmatized profession of physical anthropology. One is that under the term ' race ' Mr Barzun has confused the concept of physical taxonomy with that of mental differentiation. He admits no difference between legitimate classifiers like Deniker and Lebzelter, and race propagandists like Günther and Stoddard. The second is that Mr Barzun's knowledge of physical anthropology is quite superficial. He seems not to realize the existence of many scientists who are just as ' open-minded ' on the subject of mental differences between races as he, and who at the same time continue to pursue the dull but honest trade, which he openly ridicules, of skull measuring. Only a few, however, will probably understand these deficiencies and errors. The uncritical non-professional reader may feel with comfort that Mr Barzun has laid low the chimera of race, and those who do not read him at all, but merely hear him paraphrased, can be sure of it.

The historical section of the book, which is actually the major part of it, is the place where the author's scholarship, wit, and ability to write lucid English are for the most part happily combined. He shows an admitted partiality for

French science and philosophy, and for French literature, in which fields he seems to be widely versed. But here again his passion for flippant iconoclasm at times overcomes him. ' . . . the Celts are always with us, even though they may never have existed. They were largely invented in the middle of the eighteenth century . . .' (p. 150). A wit which depends for its effect on the exaggeration, distortion, or contradiction of fact has its place in literature, but not in a book intended to vitiate and destroy whole fields of learning.

Aware that prejudice, racial or otherwise, is an essential part of most social fabrics, the author traces the particular thread of what he calls ' racial ' theory which led to its historical culmination in the present-day absurdities of the Third Reich. Furthermore he shows reasons why such systems of discrimination have arisen in France, Germany, and elsewhere. ' Those human beings who have not lost their pigmentation are simply more clearly marked than others for discrimination ; they wear a uniform that they cannot take off, but they are not alone in their plight. Others have eyes, noses, or brogues to distinguish them in a rough and ready way and make them bear all the faults or all the virtues supposedly inherent in the group to which they are said to belong. Those faults and those virtues are themselves social in origin ' (p. 276). ' The truth of the matter is that in the modern world, real or supposed feuds apparently cannot be carried on in their own terms. Race happens to be the most popular form of gloss for simple hatred ' (p. 256). ' Race in Germany was a means to give back to the German people a feeling of self respect after the national humiliation of Versailles and since ' (pp. 250–251).

As the above quotations indicate, Mr Barzun has thought and written clearly and well on the subject of race prejudice, if not on race. He has competently exposed the logical fallacies of racial propagandists. This, and his historical survey of literate race prejudice in Europe and America, are the high points of his book, and as such it deserves unqualified praise. But he has not disproved, or even shown it unlikely, that races exist, as he attempts to do in his last chapter, while his flippancy and his counter-prejudices have left an otherwise excellent work marred.

CARLETON S. COON.

LEYIT KIN : a small House Ruin, Chaco Canyon, New Mexico. Excavation report by BERTHA P. DUTTON. *University of New Mexico Press, Santa Fe*, 1938. *pp.* 101 *and* 21 *plates.* 2 *dollars.*

The report is quite careful and clear, and the excavation work seems to have been carried out very carefully. Leyit Kin is a small ruin in the Chaco Canyon, in the northwestern part of the State of New Mexico. It was first excavated in 1934, and again in 1936 by the author with the help of W.P.A. workmen. Seventeen rooms and four *Kivas* or ceremonial-chambers have

been found, and more are to be cleared. A great deal of pottery and other elements of material culture have been discovered.

In its present state of progress, the work of Leyit Kin affords an interesting contribution to the stratigraphy of cultures in the Pueblo area. It appears that the first culture-unit which underlies the others may be dated *c.* A.D. 800-950. The place was abandoned and new rooms and *Kivas* were built probably in the eleventh century. The last remains point to a 'Pueblo III' cultural type. JACQUES SOUSTELLE.

PICTURE-WRITING OF TEXAS INDIANS. *By* A. T. JACKSON. *University of Texas Publication*, 3809, 1938. *pp.* XXVI, 490, *with* 49 *maps*, 324 *plates. Distributed free by the Univ. of Texas, Austin, Texas, U.S.A.*

This valuable study deals with the pictographs which are to be seen in many rock-shelters and other sites of Texas. The author has classified them most carefully and gives a detailed account of all the sites recorded, not without complaints about the vandalism of many tourists or idle travellers, who often seriously damage these important remains of primitive American art.

From the evidence so far gathered, it seems that the practice of making pictures on rocks originated about A.D. 400, and that it persisted well into historic times. The majority of the pictures do not seem to be older than 500 years. Many show an influence of the Spanish missions. Horses, cattle, and other imported elements are eventually met with.

As to the meaning of the pictures, there is so little to say that the very term 'picture-writing' may not be considered quite appropriate. The author states that 'all picture-writings were not idle scrawls, but there is no key by which all may be deciphered'. Some of them (sun-symbols, masked figures, etc.) probably had a religious significance, while others were meant to serve as charms, or represented clan or individual totems. Comparison with pottery designs and with pictographs on hides made during the historic period will possibly lead to a better understanding of the rock-drawings.

Mr Jackson's book is illustrated with many good plates and with distribution-maps which may prove very useful for further study.

JACQUES SOUSTELLE.